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CONSOLIDATED BALANCE SHEETS

By

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PREFACE

This volume attempts to be a working manual on consolidated balance sheet technique. Accordingly, 41 rules, supported by very brief discussions and 136 illustrations or cases, are given for use in preparing consolidated statements.

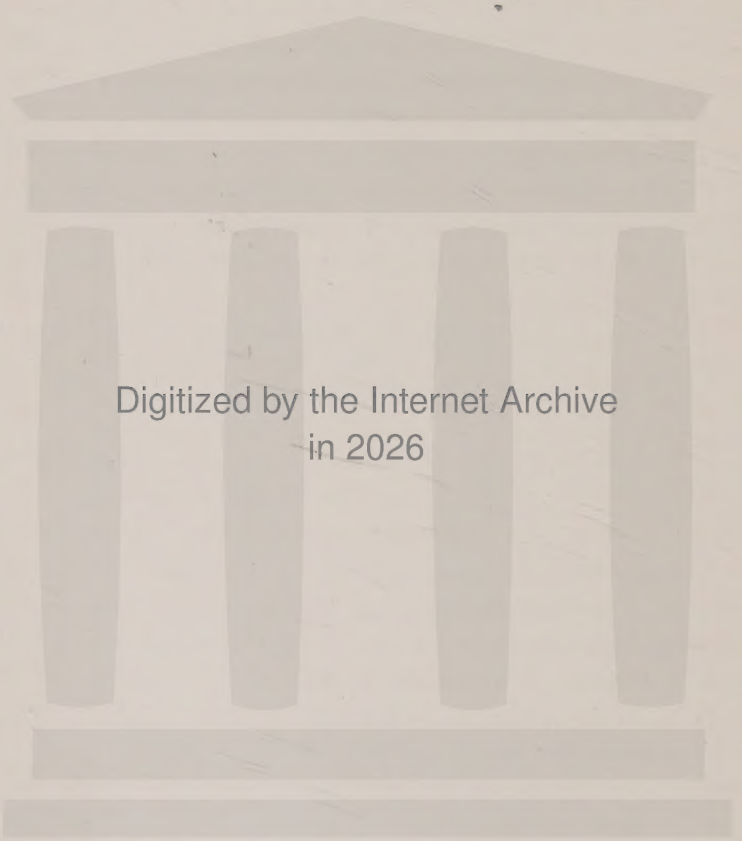
Realizing that many of the points covered constitute virgin territory, the solutions of all the problems even remotely affected by the intercompany stock eliminations have been proved by both the "cost value" and the "actual value" methods. It is hoped that this practice will also widen the usefulness of the volume.

The author has found his experience as auditor and reviewer in the Affiliation Section, Income Tax Unit, U. S. Treasury Department, very valuable in writing this work, and he wishes to express his appreciation of the courtesy of Mr. H. L. Robinson, and Mr. L. W. Plowman, who were his chiefs during the 16 months he was in the Affiliation Section.

He also wishes to express his appreciation of the encouragement given by his former chief, Mr. J. W. Beers, in his efforts during the 37 months spent as full-time instructor of consolidated balance sheet technique in the Consolidated Returns Training School, Income Tax Unit, U. S. Treasury Department. He is further indebted for the critical study of his lectures made by the 376 accountants, who comprised the 38 classes he taught in the resident division of the School, and by the 517 field revenue agents he taught in the correspondence division of the School. He has also received many valuable suggestions from Mr. J. R. Ballinger, the Income Tax Law Instructor of the School.

G. H. NEWLOVE

Baltimore, Md.,
September 10, 1926.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CONSOLIDATED BALANCE SHEETS

CHAPTER I

HOLDING COMPANIES

Combinations of Corporations.—While attempting to lessen competition, financiers have resorted to (1) pools, (2) trusts, (3) community of interest, (4) holding companies, (5) mergers, (6) consolidations, and (7) leases.

Pools.—The pools, which were the favorite method of controlling competition prior to 1898, were voluntary associations of sellers who placed the marketing of their product under some central control or general restriction. While major matters were voted upon by the members of the association, the central governing or advisory body conducted all routine business, received and distributed the funds of the organization, secured favorable terms for materials purchased, obtained rebates from railroads, assisted its members in dealing with organized labor, etc. The essential weakness of the pools was their inability to enforce their agreements, especially during periods of business depression, when business at profitable prices was hard to obtain.

A famous example of pools is the Bessemer Steel Pool. This pool, organized in 1896, included most of the producers of crude steel and finished material in the middle western states. The aggregate output was allotted on a percentage basis, mills exceeding their allotment paying $2 per ton of such excess into the pool treasury, while an equivalent was paid out of the treasury to members who did not ship their allotment.

Trusts.—Trusts were created by depositing the stocks of the constituent companies with trustees in exchange for trust

certificates which entitled the holders to such dividends as might be ordered on the stocks and to votes in the election of the trustees. The trustees directed the management of the constituent companies and regulated the prices and output. As compared to pools, the trusts were permanent, and their government was centralized, responsible and representative. However, the trusts were matters of record and were thus subject to legal attack. This attack began in 1890, when the North River Sugar Refining Company was dissolved. [121 N. Y. 582 (1890)].

Community of Interest.—When the Standard Oil Trust was dissolved [49 Ohio St. 137 (1892)], the stock held by the trustees was returned to its owners. As the majority of the stock was owned by nine men who had been prominent in the management of the trust, unanimity of action was retained by a "gentlemen's agreement." Friendship and even relationship will not usually overrule self-interest so community of interest was an unsatisfactory method of combining corporations.

Holding Companies—AUTHORIZATION.—Before 1889, no state authorized by statute the chartering of a corporation for the general purpose of owning the stocks of other corporations. In 1889, New Jersey revised its corporate act to permit the organization of holding companies. In 1891, the American Sugar Refining Company of New Jersey was organized to hold the stocks of the old Sugar Trust. In 1895, the E. C. Knight case held that the Sherman Act, the Federal Anti-Trust Law passed in 1890, was inoperative on holding companies, the subsidiaries of which were not engaged in Interstate Commerce. The Northern Securities Company case [193 U. S. 197 (1904)] held that the Sherman Act was operative against holding companies if the subsidiaries engaged in Interstate Commerce. In the Standard Oil Company case [221 U. S. 1 (1911)] the court wrote into the Sherman Act the now

famous "rule of reason." Under this rule, holding companies are safe unless they represent undue and harmful restraints of trade.

Classification.—Holding companies may be divided into classes upon two bases, (a) reasons for holding the stock, viz., investment for both control and income, or merely for income, and (b) whether or not they are operating as well as holding companies.

Parent Companies.—Parent companies constitute a subdivision of holding companies, which organizes the corporations the stock of which it holds. This distinction between parent and holding companies is financial rather than legal.

Accounting.—The status of holding company and subsidiary does not seriously affect the accounting requirements of either company. The holding company is involved, aside from the financial statements, merely with the accounting for permanent investments in corporate securities, while the subsidiary is not affected save as to the record of stockholders.

Mergers.—Mergers are amalgamations of corporations formed by combining one or more corporations with an already existing corporation. The merged corporations must be dissolved. Mergers involve the accounting for the closure of the old books and the taking up of the assets and liabilities on the books of the corporation which absorbs the old concerns. The legal point that the remaining corporation may have to operate plants in states in which it is a foreign corporation is important.

Consolidations.—Consolidations are amalgamations of corporations formed by combining one or more corporations with a new corporation especially organized for that purpose. The accounting and legal aspects of mergers and consolidations are practically identical.

Leases.—The use of leases in combining corporations is common in railroads. Such leases usually describe and provide for the maintenance of the property, specify the duration of the lease, and state the rentals. The chief accounting involved in leases is the amortization of prepayments of rents and of improvements made on leased property.

Consolidated Balance Sheets.—A consolidated balance sheet is a statement showing the precise assets and liabilities of the holding company and its subsidiaries, for the purpose of showing, after eliminating intercompany items, exactly what stands behind the stock securities of the holding company. A consolidated balance sheet is a balance sheet for a group of affiliated companies made on the assumption that the corporations were consolidated.

Minority Interest.—From the point of view of the majority interests, the algebraic sum of the capital stock, surplus, deficit, and proprietorship reserves belonging to minority interests is a liability. However, the minority stockholders rank as proprietors rather than creditors. The minority interests, therefore, should be shown on the consolidated balance sheet as a special net worth account. The minority interests may be shown on the consolidated balance sheet either itemized or merely in total, the latter method being preferable if there is a deficit or if there are numerous surplus reserves.

Legal Status.—Until the promulgation of Treasury Decision 2662, which required the use of consolidated balance sheets by affiliated companies in regard to the excess profits taxes under the Revenue Act of 1917, consolidated balance sheets had no legal status. The Revenue Acts of 1918, 1921, 1924 and 1926 contain specific provisions regarding the use of consolidated balance sheets.

Uses.—Consolidated balance sheets have three main uses, (a) as reports to banks, (b) as reports to stockholders, and (c) as reports to the Government. The individual balance sheet of a holding company does not correctly show its financial standing. The net worth is misstated, if the holding company's investment in the stock of a subsidiary is carried at cost, unless all the profits of the subsidiary are taken as dividends. This objection to the use of the individual balance sheet of a holding company can be obviated by carrying the investment at its actual value, cost plus profits less losses and non-stock dividends. The objection still remains, however, that the investment, which is shown on the individual balance of the holding company as a fixed asset, really represents ownership in current assets and fixed tangible and intangible assets. Consolidated balance sheets therefore must be used whenever a correct financial statement of the majority interest in a group of companies is desired.

General Rule.—The technique used in preparing consolidated balance sheets may be divided into the following steps:

(a) Adjust the balance sheets of the constituent companies until they correctly portray the condition of the respective companies upon their individual bases.
(b) Analyze the net worth accounts into the portions belonging to the majority and those belonging to minority interests.
(c) Write similar items opposite each other in parallel money columns (a five money-column working sheet is suitable for two companies).
(d) Eliminate all items that appear twice.
(e) Extend the algebraic sum of the amounts pertaining to the similar items.
(f) Rewrite the last money column into either the usual report or account form of balance sheet.

Constituent Balance Sheets.—The basic balance sheets must be prepared without regard to affiliation; each must be correct on its own individual basis. The difficulty in solving problems in consolidated balance sheets is largely due to the fact that the procurement of the individual balance sheets frequently involves stock dividends, amortization of bond premium, passed cumulative dividends, stock rights, no-par stock, treasury stock, etc. While a reasonably thorough knowledge of these points in ordinary advanced corporation accounting has been assumed in this volume, care has been taken to show the complete journal entries on the books of the holding company for the first problem in each group.

Allocation of Net Worth.—The reason for entering the constituent balance sheets on the consolidated working sheet on the original individual bases is that the minority interests are not concerned with the consolidated balance sheet. The minority interests own aliquot shares of the net worth of their companies computed on the individual basis. Since a consolidated balance sheet is the financial statement of the majority interest and is not merely the sum of the balance sheets of the constituent companies, the consolidated working sheets must clearly differentiate between the majority and minority interests.

Consolidated Working Papers.—The use of consolidated working papers is illustrated in solving the following very simple problem.

	Co. X	Co. Y		Co. X	Co. Y
Other Assets.....	$ 60,000	$60,000	Due to Co. X.....	.....	$10,000
Due from Co. Y..	10,000	.....	Capital Stock.....	$100,000	50,000
Y's Stock.....	40,000	.....	Surplus.....	10,000	.....
	$110,000	$60,000		$110,000	$60,000

Assuming that the above balance sheets show the true financial condition of each company immediately after the purchase

of 400 shares of Company Y's stock by Company X, make a consolidated balance sheet.

			Eliminations		
	Co. X	Co. Y	Dr.	Cr.	C.B.S.
Other Assets	$ 60,000	$60,000	.....	.....	$120,000
Due from Co. Y	10,000	.....	.....	$10,000	.....
Y's Stock	40,000	.....	.....	40,000	.....
	$110,000	$60,000			$120,000
Due to Co. X	.....	$10,000	$10,000	.....	.....
Capital Stock:					
Inside	$100,000	40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	10,000	.....	.....	.....	10,000
Outside	.....	.....	.....	.....	.....
	$110,000	$60,000			$120,000

In practice "Dr." and "Cr." subheadings are often omitted; they are inserted here to show more clearly which of the eliminations columns should be used—credit entries obviously eliminate debit balances (assets) and debit entries eliminate credit balances. If desired, the eliminations columns may be footed; the sum of the debits must equal the sum of the credits.

In the simple illustrative problem, Company Y had neither a surplus nor deficit in order to avoid the complexity of having to analyze the carrying value of Company Y's stock on Company X's books (subject is discussed in Chapter II). If Company Y had a surplus or deficit it would have to be allocated into "inside" and "outside" proratably according to stockholdings. Since Company X is the "inside" interest, obviously all of its own capital stock and surplus and its pro rata share of Company Y's capital stock and surplus are classed as "inside" and only the net worth belonging to Company Y's minority is classed as "outside."

ELIMINATIONS.—The reason for the elimination of all items that appear twice is that the same item can not be both an asset and a liability of the majority interest. The reason

for the elimination of a debt of a subsidiary to the parent is easy to see and understand. The reader should remember, however, that even in the most complicated problems no item can be eliminated unless it appears twice. Consolidated balance sheet technique is not difficult because it is merely a logical development of the above rule. No elimination may be made unless it is justified by ordinary logic.

Cross-additions.—In extending the figures (algebraic sums) into the "C.B.S." column, care must be taken to differentiate between positive and negative items. For instance, the Capital Stock—Inside account in the above illustration was:

Capital Stock—Inside

Eliminations	$ 40,000	Co. X	$100,000
Balance	100,000	Co. Y	40,000
	$140,000		$140,000
		Balance	$100,000

Special care must be taken when one of the companies has a deficit; deficits are handled as negative surplus.

Affiliations.—Affiliation is a condition in which the use of the consolidated balance sheet is necessary to show (a) the true value of the stock of the holding company and (b) the true condition of several corporations considered as one economic unit.

Causes.—While usually caused by the location of stock ownership, affiliation is directly affected by the interrelations between companies. The Income Tax Unit usually requires 95 per cent stock ownership to affiliate, but a somewhat lower percentage will be accepted if the subsidiary is dependent on the holding company for credits, markets, etc. Similarly, accountants, who ordinarily will not affiliate companies without at least 65 per cent stock ownership, will accept as low as 51 per cent, if the other conditions demand affiliation. Corporations

can not be affiliated on less than 51 per cent stock ownership, as consolidated balance sheets are based on the control idea.

Classification.—There are three kinds of affiliations, called by the Income Tax Unit, Class A, Class B, and Class C affiliations. Class A affiliations are caused by one corporation owning the controlling stock of one or more corporations, viz.,

Stockholders	Co. X	Co. Y
J. R. Ballinger	75%	.....
D. O. Throgmorton	25%	.....
Co. X	....	100%

Class B affiliations are caused by the stockholders of two or more corporations being practically the same both as to identity and relative holdings, viz.,

Stockholders	Co. D	Co. E
F. E. Long	62%	59%
R. D. Toll	38%	41%

In Class B affiliations the Income Tax Unit will not allow more than a 5 per cent variation in the percentages owned by any stockholder.

Class C affiliations are caused by one corporation owning part of the stock of one or more corporations and the stockholders of the first corporation personally owning additional stock in such ratios that, when the holding company's stock is allocated to its stockholders, a Class B affiliation exists, viz.,

	Before Allocation		After Allocation	
Stockholders	Co. F	Co. G	Co. F	Co. G
C. C. Waters	80%	30%	80%	78%
C. B. Inman	20%	10%	20%	22%
Co. F	....	60%	....	....

Most affiliations are Class A affiliations. The difference between the classes is important so far as consolidated balance sheet technique is concerned. The intercompany stock must be eliminated in Class A and Class C affiliations, while no such elimination is necessary in Class B affiliations. Except for this elimination the procedure is identical in all classes.

Stock Investments.—The accounting for holding companies, in so far as it differs from that for ordinary corporations, centers around the stock investment accounts. There are two methods of handling these accounts, (a) the Cost Value Method, and (b) the Actual Value Method. As the eliminations for the intercompany stock made in preparation of consolidated balance sheets depend on the method used in carrying the stock investments, a thorough understanding of the two methods is vital.

Cost Value Method.—The Cost Value Method of carrying the holding company's account for an investment in the stock of a subsidiary gives the following account:

SUBSIDIARY COMPANY'S STOCK

Debits:	Credits:
(a) Cost of stock purchased on open market or direct from subsidiary.	(a) Dividends, other than stock, paid out of subsidiary's surplus at date of the acquisition of said stock. (b) Pro rata share of carrying value belonging to stock sold, proper adjustment being made for stock dividends and for dividends out of subsidiary's surplus at date it was acquired by holding company.

Debit (a) includes the cost both of stock purchased on the open market, a subject studied in Chapter II, and of stock purchased directly from the subsidiary, a subject treated in Chapter III.

Credit (a) is caused by the fact that non-stock dividends out of surplus at date of acquisition, a subject studied in Chapter V, are a return of investment and not a profit.

Credit (b) is caused by the sale by the holding company of a part of its controlling investment in the subsidiary, subject covered in Chapter VI.

Actual Value Method.—The Actual Value Method of carrying the holding company's account for an investment in the stock of a subsidiary gives the following account:

SUBSIDIARY COMPANY'S STOCK

Debits:	Credits:
(a) Cost of stock purchased on open market or direct from subsidiary.	(a) Pro rata share of losses suffered by subsidiary.
(b) Pro rata share of profits made by subsidiary.	(b) Pro rata share of dividends, other than stock, declared by subsidiary.
(c) Excess of the holding company's share of the subsidiary's net worth immediately after sale of stock, treasury or unissued, directly from the subsidiary to the minority interests over the holding company's share of the subsidiary's net worth immediately before such sale.	(c) Excess of the holding company's share of the subsidiary's net worth immediately before sale of stock, treasury or unissued, directly from the subsidiary to the minority interests over the holding company's share of the subsidiary's net worth immediately after such sale.
(d) Excess of the holding company's share of the subsidiary's net worth immediately after the purchase of its own outstanding stock by the subsidiary from the minority interests over the holding company's share of the subsidiary's net worth immediately before such purchase.	(d) Excess of the holding company's share of the subsidiary's net worth immediately before the purchase of its own outstanding stock by the subsidiary from the minority interests over the holding company's share of the subsidiary's net worth immediately after such purchase.
	(e) Pro rata share of carrying value belonging to stock sold, proper adjustment being made for stock dividends.

Debit (a) includes the cost both of stock purchased on the open market, a subject treated in Chapter II, and of stock purchased directly from the subsidiary, a subject studied in Chapter III.

Debits and credits (c) and (d) cover the sale and purchase of treasury stock by the subsidiary to and from the minority interests, respectively, a subject explained in Chapter XIII.

Credit (e) is caused by the sale by the holding company of a part of its controlling investment in the subsidiary, a subject covered in Chapter VI.

The above adjustments are not made unless sufficient stocks are held to affiliate the companies. While usually companies are not affiliated without intercompany stock holdings of 65 per cent, affiliation may be based on stock holdings of 51 per

cent, if necessary. Holdings of less than 51 per cent are current assets and should be carried at cost or market, whichever is the lower. Should holdings of less than 51 per cent be subsequently increased to above 51 per cent, the above rules must be made retroactive (see Chapter VII).

Comparison of Methods.—Under both the Cost Value and Actual Value methods of carrying the controlling investment in the stock of a subsidiary, the purchase price determines the value at acquisition. Under both methods, returns of the purchase price through sale of part of the investment or liquidating dividends (non-stock dividends paid out of subsidiary's surplus at date of acquisition of said stock) reduce the carrying value of the investment.

The Cost Value method pays no attention to current profits and losses and to non-stock dividends out of surplus earned since date of acquisition, while the Actual Value method increases the carrying value for current profits and decreases it for current losses and dividends. In other words, the Cost Value method carries the investment at net cost while the Actual Value method carries the investment at net cost plus any increase in the holding company's ownership in the subsidiary's net worth less any decrease in the holding company's ownership in the subsidiary's net worth.

In order directly to compare the two methods, the journal entries on the books of the holding company for a number of typical cases have been drawn up so that the entries under the Cost Value method parallel the entries under the Actual Value method.

Case A

Company X bought on the open market 400 out of 500 shares of Company Y's stock at 110. Company Y later made $8,000.

COST VALUE METHOD			ACTUAL VALUE METHOD		
Y's Stock.....	$44,000		Y's Stock..	$44,000	
Cash.....		$44,000	Cash.....		$44,000
(No entry for profit)			Y's Stock.....	$ 6,400	
			Profit & Loss....		$ 6,400
			(4/5 × $8,000)		
Investment Balance: $44,000			Investment Balance: $44,000 + $6,400 = $50,400		

Case B

Company X bought on the open market 300 out of 500 shares of Company Y's stock at 88. Company Y later lost $3,000.

COST VALUE METHOD			ACTUAL VALUE METHOD		
Y's Stock.....	$26,400		Y's Stock.....	$26,400	
Cash.....		$26,400	Cash.....		$26,400
(No entry for loss)			Profit & Loss.....	$ 1,800	
			Y's Stock.....		$ 1,800
			(3/5 × $3,000)		
Investment Balance: $26,400			Investment Balance: $26,400 − $1,800 = $24,600		

Case C

Company X bought on the open market 450 out of 500 shares of Company Y's stock at par. Company Y later made $10,000, after which it declared and paid an $8,000 cash dividend.

COST VALUE METHOD			ACTUAL VALUE METHOD		
Y's Stock.....	$45,000		Y's Stock.....	$45,000	
Cash.....		$45,000	Cash.....		$45,000
(No entry for profit)			Y's Stock.....	$ 9,000	
			Profit & Loss....		$ 9,000
			(45/50 × $10,000)		
Cash.....	$ 7,200		Cash.....	$ 7,200	
Profit & Loss....		$ 7,200	Y's Stock.....		$ 7,200
(45/50 × $8,000)			(45/50 × $8,000)		
Investment Balance: $45,000			Investment Balance: $45,000 + $9,000 − $7,200 = $46,800		

Case D

The subscription lists of Company Y, a newly organized corporation, showed Company X 400 shares at 110 and Arthur

Jones, an outsider, 100 shares at 110. Company Y later made $10,000.

COST VALUE METHOD			ACTUAL VALUE METHOD		
Y's Stock.....	$44,000		Y's Stock.....	$44,000	
Cash.....		$44,000	Cash.....		$44,000
(No entry for profit)			Y's Stock.....	$ 8,000	
			Profit & Loss....		$ 8,000
			(4/5 × $10,000)		
Investment Balance: $44,000			Investment Balance: $44,000 + $8,000 = $52,000		

Case E

Same as Case D if Arthur Jones had paid $108 a share instead of $110.

COST VALUE METHOD			ACTUAL VALUE METHOD		
Y's Stock.....	$44,000		Y's Stock.....	$44,000	
Cash.....		$44,000	Cash.....		$44,000
(No entry for profit)			Y's Stock.....	$ 8,000	
			Profit & Loss....		$ 8,000
			(4/5 × $10,000)		
(No entry for difference in prices, as sales were simultaneous)			(No entry for difference in prices, as sales were simultaneous)		
Investment Balance: $44,000			Investment Balance: $44,000 + $8,000 = $52,000		

Case F

Company Y, having a surplus of $2,000 and capital stock (owned by private individuals) of $5,000, issued 400 new shares to Company X at 140 and 50 new shares to Charles W. Smith at 140. Company Y later made $6,000 operating net profit.

COST VALUE METHOD			ACTUAL VALUE METHOD		
Y's Stock.....	$56,000		Y's Stock.....	$56,000	
Cash.....		$56,000	Cash.....		$56,000
(No entry for profit)			Y's Stock.....	$ 4,800	
			Profit & Loss....		$ 4,800
			(4/5 × $6,000)		
Investment Balance: $56,000			Investment Balance: $56,000 + $4,800 = $60,800		

Case G

Company Y, having capital stock (owned by private individuals) of $5,000, issued 400 new shares to Company X at 72 and 50 new shares to J. R. Ballinger at 70. Company Y later made $15,000 operating net profit.

COST VALUE METHOD			ACTUAL VALUE METHOD		
Y's Stock.....	$28,800		Y's Stock.....	$28,800	
Cash.....		$28,800	Cash.....		$28,800
(No entry for profit)			Y's Stock.....	$12,000	
			Profit & Loss....		$12,000
			(4/5 × $15,000)		
(No entry for difference in prices as sales were simultaneous)			(No entry for difference in prices as sales were simultaneous)		
Investment Balance: $28,800			Investment Balance: $28,800 + $12,000 = $40,800		

Case H

On January 1, 1924, Company X bought on the open market 400 out of 500 shares of Company Y's stock at 125. On January 1, 1925, Company Z was organized, Company Y and J. A. Sutton subscribing and paying at 101 for 300 shares and 100 shares, respectively. Since organization each company has made an annual profit of $10,000. Take accounts up to January 1, 1926.

COST VALUE METHOD			ACTUAL VALUE METHOD		
Y's Stock.....	$50,000		Y's Stock.....	$50,000	
Cash.....		$50,000	Cash.....		$50,000
(No entry for purchase of Co. Z's stock by Co. Y)			(No entry for purchase of Co. Z's stock by Co. Y)		
(No entry for Co. Y's operating profits)			Y's Stock.....	$16,000	
			Profit & Loss....		$16,000
			[4/5 × ($10,000 + $10,000)]		
(No entry for Co. Z's operating profits)			Y's Stock.....	$ 6,000	
			Profit & Loss....		$ 6,000
			(4/5 × 3/4 × $10,000)		
Investment Balance: $50,000			Investment Balance: $50,000 + $16,000 + $6,000 = $72,000		

Case I

On January 1, 1925, Company X bought 400 out of 500 shares of Company Y's stock at 125 on the open market. During 1925 Company Y made $10,000, and, on December 31, 1925, paid a cash dividend of $12,000.

COST VALUE METHOD			ACTUAL VALUE METHOD		
Y's Stock.....	$50,000		Y's Stock.....	$50,000	
Cash.....		$50,000	Cash.....		$50,000
(No entry for Co. Y's profits)			Y's Stock.....	$ 8,000	
			Profit & Loss....		$ 8,000
			(4/5 × $10,000)		
Other Assets.....	$ 9,600		Other Assets.....	$ 9,600	
Y's Stock.....		$ 1,600	Y's Stock		$ 9,600
Profit & Loss....		8,000	(4/5 × $12,000)		
[4/5 × ($12,000 − $10,000) = $1,600]					
Investment Balance:			Investment Balance:		
$50,000 − $1,600 = $48,400			$50,000 + $8,000 − $9,600 = $48,400		

Case J

On January 1, 1924, Company X bought 450 out of 500 shares of Company Y's stock at 125 on the open market. On January 1, 1925, Company Y bought 350 out of 400 shares of Company Z's stock at 115 on the open market. During 1924 and 1925 Company Y and Company Z each made $800 each year. On December 31 of 1924 and 1925 Company Y and Company Z each paid a cash dividend of $2,000.

COST VALUE METHOD			ACTUAL VALUE METHOD		
Y's Stock.....	$56,250		Y's Stock.....	$56,250	
Cash.....		$56,250	Cash.....		$56,250
(No entry for purchase of Co. Z's stock by Co. Y)			(No entry for purchase of Co. Z's stock by Co. Y)		
(No entry for Co. Y's operating profits)			Y's Stock.....	$ 1,440	
			Profit & Loss....		$ 1,440
			[9/10 × ($800 + $800)]		
(No entry for Co. Z's operating profits)			Y's Stock.....	$ 630	
			Profit & Loss....		$ 630
			(9/10 × 7/8 × $800)		

COST VALUE METHOD

(No entry for Co. Z's dividends)

Cash.....	$ 3,600	
Y's Stock.....		$ 1,530
Profit & Loss....		2,070
9/10 × ($2,000 − $800) =	$ 1,080	
9/10 × [$2,000 − ($800 + $700)] =	450	
	$ 1,530	

Investment Balance:
$56,250 − $1,530 = $54,720

ACTUAL VALUE METHOD

(No entry for Co. Z's dividends)

Cash.....	$ 3,600	
Y's Stock.....		$ 3,600
[9/10 × ($2,000 + $2,000)]		

Investment Balance:
$56,250 + $1,440 + $630 − $3,600 = $54,720

Case K ✓

On January 1, 1925, Company X bought 75 out of 100 shares of Company Y's stock at 600 on the open market. During 1925, Company Y made $10,000, and, on December 31, 1925, paid a stock dividend of $40,000.

COST VALUE METHOD

Y's Stock.....	$45,000	
Cash.....		$45,000

(No entry for Co. Y's profits)

(No entry for stock dividend)

Investment Balance:
$45,000

ACTUAL VALUE METHOD

Y's Stock.....	$45,000	
Cash.....		$45,000
Y's Stock.....	$ 7,500	
Profit & Loss.... (3/4 × $10,000)		$ 7,500

(No entry for stock dividend)

Investment Balance:
$45,000 + $7,500 = $52,500

Case L ✓

On January 1, 1924, Company X bought 300 out of 400 shares of Company Y's stock at 120 on the open market, when Company Y's surplus was $5,000. On January 1, 1925, Company Y issued 100 new shares to A. Lang at 120. Each company made $5,000 in 1924 and in 1925.

COST VALUE METHOD

Y's Stock.....	$36,000	
Cash.....		$36,000

(No entry for Co. Y's 1924 profits)

ACTUAL VALUE METHOD

Y's Stock.....	$36,000	
Cash.....		$36,000
Y's Stock.....	$ 3,750	
Profit & Loss.... (3/4 × $5,000)		$ 3,750

COST VALUE METHOD		ACTUAL VALUE METHOD		
(No entry for sale to A. Lang)		Profit & Loss.....	$ 300	
		Y's Stock.....		$ 300
		3/4 × $10,000 =	$ 7,500	
		3/5 × $12,000 =	7,200	
			$ 300	
(No entry for Co. Y's 1925 profits)		Y's Stock.....	$ 3,000	
		Profit & Loss....		$ 3,000
		(3/5 × $5,000)		
Investment Balance:		Investment Balance:		
$36,000		$36,000 + $3,750 − $300 + $3,000 =		
		$42,450		

Case M

Same as Case L if A. Lang had paid $135 a share instead of $120.

COST VALUE METHOD		ACTUAL VALUE METHOD		
Y's Stock..... $36,000		Y's Stock.....	$36,000	
Cash.....	$36,000	Cash.....		$36,000
(No entry for Co. Y's profits)		Y's Stock.....	$ 3,750	
		Profit & Loss....		$ 3,750
		(3/4 × $5,000)		
(No entry for sale to A. Lang)		Y's Stock.....	$ 600	
		Profit & Loss....		$ 600
		3/5 × $13,500 =	$ 8,100	
		3/4 × $10,000 =	7,500	
			$ 600	
(No entry for Co. Y's 1925 profits)		Y's Stock.....	$ 3,000	
		Profit & Loss....		$ 3,000
		(3/5 × $5,000)		
Investment Balance:		Investment Balance:		
$36,000		$36,000 + $3,750 + $600 + $3,000 =		
		$43,350		

Case N

On January 1, 1925, Company X bought 450 out of 500 shares of Company Y's stock at 120 on the open market. During 1925, each company made $10,000, and, on December 31, Company X sold 50 shares of Company Y's stock at 132 to W. O. Weyforth.

COST VALUE METHOD			ACTUAL VALUE METHOD		
Y's Stock.....	$54,000		Y's Stock.....	$54,000	
Cash.....		$54,000	Cash.....		$54,000
(No entry for Co. Y's profits)			Y's Stock.....	$ 9,000	
			Profit & Loss....		$ 9,000
			(45/50 × $10,000)		
Cash.....	$ 6,600		Cash.....	$ 6,600	
Y's Stock.....		$ 6,000	Profit & Loss.....	400	
Profit & Loss....		600	Y's Stock.....		$ 7,000
[($54,000 ÷ 450) × 50 = $6,000]			{[($54,000 + $9,000) ÷ 450] × 50 = $7,000}		
Investment Balance: $54,000 − $6,000 = $48,000			Investment Balance: $54,000 + $9,000 − $7,000 = $56,000		

Case O

On January 1, 1925, Company X bought 400 out of 500 shares of Company Y's stock at 125 on the open market. During 1925 each company made $30,000. On December 31, 1925, Company Y paid a stock dividend of $25,000, and Company X sold to J. H. Hollander 150 shares of Company Y's stock at 124 (ex-dividend).

COST VALUE METHOD			ACTUAL VALUE METHOD		
Y's Stock.....	$50,000		Y's Stock.....	$50,000	
Cash.....		$50,000	Cash.....		$50,000
(No entry for Co. Y's profits)			Y's Stock.....	$24,000	
			Profit & Loss....		$24,000
			(4/5 × $30,000)		
(No entry for stock dividend)			(No entry for stock dividend)		
Cash.....	$18,600		Cash.....	$18,600	
Y's Stock.....		$12,500	Y's Stock.....		$18,500
Profit & Loss....		6,100	Profit & Loss....		100
{[$50,000 ÷ (400 + 200)] × 150 = $12,500}			{[($50,000 + $24,000) ÷ (400 + 200)] × 150 = $18,500}		
Investment Balance: $50,000 − $12,500 = $37,500			Investment Balance: $50,000 + $24,000 − $18,500 = $55,500		

Case P

On January 1, 1923, Company X purchased on the open market 200 out of 500 shares of Company Y's stock at 105. Company X purchased on the open market 100 shares of Company Y's stock at 110 and 100 shares of Company Y's stock at

115 on January 1, 1924, and January 1, 1925, respectively. Company Y made $10,000 during each of the years 1923, 1924 and 1925.

COST VALUE METHOD			ACTUAL VALUE METHOD		
Y's Stock.....	$21,000		Y's Stock.....	$21,000	
Cash.....		$21,000	Cash.....		$21,000
(No entry for Co. Y's 1923 profits)			Y's Stock.....	$ 4,000	
			Profit & Loss....		$ 4,000
			(2/5 × $10,000)		
Y's Stock.....	$11,000		Y's Stock.....	$11,000	
Cash.....		$11,000	Cash.....		$11,000
(No entry for Co. Y's 1924 profits)			Y's Stock.....	$ 6,000	
			Profit & Loss....		$ 6,000
			(3/5 × $10,000)		
Y's Stock.....	$11,500		Y's Stock.....	$11,500	
Cash.....		$11,500	Cash.....		$11,500
(No entry for Co. Y's 1925 profits)			Y's Stock.....	$ 8,000	
			Profit & Loss....		$ 8,000
			(4/5 × $10,000)		
Investment Balance:			Investment Balance:		
$21,000 + $11,000 + $11,500 =			$21,000 + $4,000 + $11,000 +		
$43,500			$6,000 + $11,500 + $8,000 =		
			$61,500		

Case Q

On January 1, 1923, Company X purchased on the open market 150 out of 500 shares of Company Y's stock at 109. Company X purchased on the open market 200 shares of Company Y's stock at 108 and 125 shares of Company Y's stock at 106 on January 1, 1924, and January 1, 1925, respectively. Company Y suffered a $5,000 loss during each of the years 1923, 1924 and 1925.

COST VALUE METHOD			ACTUAL VALUE METHOD		
Y's Stock.....	$16,350		Y's Stock.....	$16,350	
Cash.....		$16,350	Cash.....		$16,350
(No entry for Co. Y's 1923 losses)			Profit & Loss.....	$ 1,500	
			Y's Stock.....		$ 1,500
			(15/50 × $5,000)		
Y's Stock.....	$21,600		Y's Stock.....	$21,600	
Cash.....		$21,600	Cash.....		$21,600
(No entry for Co. Y's 1924 losses)			Profit & Loss.....	$ 3,500	
			Y's Stock.....		$ 3,500
			(35/50 × $5,000)		

COST VALUE METHOD			ACTUAL VALUE METHOD		
Y's Stock.....	$13,250		Y's Stock.....	$13,250	
Cash.....		$13,250	Cash.....		$13,250
(No entry for Co. Y's 1925 losses)			Profit & Loss.....	$ 4,750	
			Y's Stock.....		$ 4,750
			(475/500 × $5,000)		
Investment Balance: $16,350 + $21,600 + $13,250 = $51,200			Investment Balance: $16,350 − $1,500 + $21,600 − $3,500 + $13,250 − $4,750 = $41,450		

Case R

Same as Case P if Company Y had declared an $8,000 cash dividend on December 31 of each of the years 1923, 1924 and 1925.

COST VALUE METHOD			ACTUAL VALUE METHOD		
Y's Stock.....	$21,000		Y's Stock.....	$21,000	
Cash.....		$21,000	Cash.....		$21,000
(No entry for Co. Y's 1923 profits)			Y's Stock.....	$ 4,000	
			Profit & Loss....		$ 4,000
			(2/5 × $10,000)		
Cash.....	$ 3,200		Cash.....	$ 3,200	
Profit & Loss....		$ 3,200	Y's Stock.....		$ 3,200
(2/5 × $8,000)			(2/5 × $8,000)		
Y's Stock.....	$11,000		Y's Stock.....	$11,000	
Cash.....		$11,000	Cash.....		$11,000
(No entry for Co. Y's 1924 profits)			Y's Stock.....	$ 6,000	
			Profit & Loss....		$ 6,000
			(3/5 × $10,000)		
Cash.....	$ 4,800		Cash.....	$ 4,800	
Profit & Loss....		$ 4,800	Y's Stock.....		$ 4,800
(3/5 × $8,000)			(3/5 × $8,000)		
Y's Stock.....	$11,500		Y's Stock.....	$11,500	
Cash.....		$11,500	Cash.....		$11,500
(No entry for Co. Y's 1925 profits)			Y's Stock.....	$ 8,000	
			Profit & Loss....		$ 8,000
			(4/5 × $10,000)		
Cash.....	$ 6,400		Cash.....	$ 6,400	
Profit & Loss....		$ 6,400	Y's Stock.....		$ 6,400
(4/5 × $8,000)			(4/5 × $8,000)		
Investment Balance: $21,000 + $11,000 + $11,500 = $43,500			Investment Balance: $21,000 + $4,000 − $3,200 + $11,000 + $6,000 − $4,800 + $11,500 + $8,000 − $6,400 = $47,100		

Case S

Same as Case P if Company Y had declared an $11,000 cash dividend on December 31 of each of the years 1923, 1924 and 1925.

COST VALUE METHOD			ACTUAL VALUE METHOD		
Y's Stock	$21,000		Y's Stock	$21,000	
Cash		$21,000	Cash		$21,000
(No entry for Co. Y's 1923 profits)					
			Y's Stock	$ 4,000	
			Profit & Loss		$ 4,000
			(2/5 × $10,000)		
Cash	$ 4,400		Cash	$ 4,400	
Profit & Loss		$ 4,000	Y's Stock		$ 4,400
Y's Stock		400	(2/5 × $11,000)		
[2/5 × ($11,000 − $10,000) = $400]					
Y's Stock	$11,000		Y's Stock	$11,000	
Cash		$11,000	Cash		$11,000
(No entry for Co. Y's 1924 profits)					
			Y's Stock	$ 6,000	
			Profit & Loss		$ 6,000
			(3/5 × $10,000)		
Cash	$ 6,600		Cash	$ 6,600	
Y's Stock		$ 600	Y's Stock		$ 6,600
Profit & Loss		6,000	(3/5 × $11,000)		
[3/5 × ($11,000 − $10,000) = $600]					
Y's Stock	$11,500		Y's Stock	$11,500	
Cash		$11,500	Cash		$11,500
(No entry for Co. Y's 1925 profits)					
			Y's Stock	$ 8,000	
			Profit & Loss		$ 8,000
			(4/5 × $10,000)		
Cash	$ 8,800		Cash	$ 8,800	
Y's Stock		$ 800	Y's Stock		$ 8,800
Profit & Loss		8,000	(4/5 × $11,000)		
[4/5 × ($11,000 − $10,000) = $800]					
Investment Balance:			Investment Balance:		
$21,000 − $400 + $11,000 − $600			$21,000 + $4,000 − $4,400 + $11,000		
+ $11,500 − $800 = $41,700			+ $6,000 − $6,600 + $11,500 + $8,000		
			− $8,800 = $41,700		

Case T

Company X bought 300 out of the 500 shares of Company Y's stock on January 1, 1924 at 125 on the open market, when Company Y's surplus was $5,000. On January 1, 1925, Com-

pany Y bought 100 shares of its own stock from J. W. Beers at par. Company Y made an operating profit of $10,000 during each of the years 1924 and 1925.

COST VALUE METHOD			ACTUAL VALUE METHOD		
Y's Stock.....	$37,500		Y's Stock.....	$37,500	
Cash.....		$37,500	Cash.....		$37,500
(No entry for Co. Y's 1924 profits)			Y's Stock.....	$ 6,000	
			Profit & Loss....		$ 6,000
			(3/5 × $10,000)		
(No entry for purchase of treasury stock)			Y's Stock.....	$ 2,250	
			Profit & Loss....		$ 2,250
			3/4 × $15,000 =	$11,250	
			3/5 × $15,000 =	9,000	
				$ 2,250	
(No entry for Co. Y's 1925 profits)			Y's Stock.....	$ 7,500	
			Profit & Loss....		$ 7,500
			(3/4 × $10,000)		
Investment Balance: $37,500			Investment Balance: $37,500 + $6,000 + $2,250 + $7,500 = $53,250		

CHAPTER II

STOCK PURCHASED ON OPEN MARKET

As it makes considerable difference whether the intercompany stock is purchased on the open market or directly from the subsidiary, only open market purchases will be studied in this chapter and purchases made directly from the subsidiary will be studied in Chapter III. As the elimination entries for stock purchased all at one time are frequently different from the elimination entries for stock purchased at various dates, the first case will be discussed immediately and the other case will be investigated in Chapter VII.

Rule I

A. Analyze into its component parts the carrying value, under the Cost Value Method, of the controlling investment in the common stock of a subsidiary, purchased at one time on open market, which value is the algebraic sum of

(a) The par value of the stock purchased and still held,

(b) Either the surplus purchased at acquisition and still held less any amounts thereof later received as non-stock dividends or the deficit purchased at acquisition and still held, and

(c) The positive or negative goodwill purchased at acquisition and still held.

B. Eliminate on the consolidated working papers by

(1) Crediting Investment account with the carrying value of the stock held,

(2) Debiting Capital Stock—Inside for the par value of the stock found in (Aa) above,

(3) Either debiting Surplus—Inside for the surplus found in (Ab) above or crediting Surplus—Inside for the deficit found in (Ab) above, and

(4) Either debiting Goodwill account for the positive goodwill found in (Ac) above or crediting as much of the negative goodwill found in (Ac) above to Goodwill account as the subsidiary had positive goodwill on its own balance sheet at date of acquisition and crediting the remaining negative goodwill found in (Ac) above to Capital Surplus—Inside account in case of a "lucky-buy" or to Reserve for Revaluation of Assets account if it is not a case of a "lucky-buy."

The words "and still held" in (Aa), (Ab) and (Ac) above are necessitated by the adjustment caused by a sale of a part of the controlling investment. For instance, Company X could buy 90 per cent of the stock of Company Y and later sell part of its holdings. This subject is taken up in detail in Chapter VI.

The words "less any surplus purchased at acquisition later received as non-stock dividends" in (Ab) above are caused by the fact that dividends out of subsidiary's surplus at date it was acquired by the holding company constitute a return of investment instead of income. This subject is taken up in detail in Chapter V.

Rule II

A. Analyze into its component parts the carrying value, under the Actual Value Method, of the controlling investment in the common stock of a subsidiary,

purchased at one time on open market, which value is the algebraic sum of

(a) The par value of the stock now held,
(b) Either the present surplus or deficit pertaining to the stock now held, and
(c) The positive or negative goodwill pertaining to the stock now held.

B. Eliminate on the consolidated working papers by
(1) Crediting Investment account with the carrying value of the stock held,
(2) Debiting Capital Stock—Inside for the par value of the stock found in (Aa) above,
(3) Either debiting Surplus—Inside for the surplus found in (Ab) above or crediting Surplus—Inside for the deficit found in (Ab) above, and
(4) Either debiting Goodwill account for the positive goodwill found in (Ac) above or crediting as much of the negative goodwill found in (Ac) above to Goodwill account as the subsidiary had positive goodwill on its own balance sheet at date of acquisition and crediting the remaining negative goodwill found in (Ac) above to Capital Surplus—Inside account in case of a "lucky-buy" or to Reserve for Revaluation of Assets account if it is not a case of a "lucky-buy."

Positive Goodwill.—Goodwill may be defined as the purchase price of the control of excess earning power. The important points to this definition are:

(a) The company must have potential excess earning power. The excess of the purchase price of a company over its book value is not goodwill if the assets are undervalued. Secret reserves must be abolished (see Rule XXXIV on

page 251) before the goodwill may be calculated under Rules I and II.

(b) The excess earning power must be controlled. Minority holdings in intercompany stock do not give rise to goodwill (see Chapter XII). Non-participating preferred stock does not give rise to goodwill (see Chapter X).

(c) The control of the excess earning power must be purchased before it may be booked as goodwill. Since the consolidated balance sheet is really a balance sheet of the majority interests, only the goodwill attaching to the stock purchased by the holding company may be recorded.

The positive goodwill calculated in (Ac) of Rules I and II meets the three requirements. A purchase has been made, the control element exists, and the potential excess earning power may be assumed as a purchaser expects to receive his money's worth of tangible (recorded book value) or intangible (goodwill) assets. The positive goodwill calculated by Rules I and II is universally accepted, the disputes involving only the negative goodwill.

Negative Goodwill.—All the authorities agree that the negative goodwill calculated in (Ac) of Rules I and II must be applied first against any positive goodwill of the subsidiary. There are, however, three opinions as to the application to be made of any excess of the negative over the positive goodwill of the subsidiary, viz.,

(a) Apply against any positive goodwill on balance sheets of any of the constituent companies, any unabsorbed portion being credited to Capital Surplus (no proof of a "lucky-buy" required).

(b) Apply against any positive goodwill on balance sheets of any of the constituent companies, any unabsorbed portion being credited to Capital Surplus in case of a "lucky-buy" or to a Reserve for Revaluation of Assets if it is not a case of a "lucky-buy."

(c) Credit to Capital Surplus in case of a "lucky-buy" or to a Reserve for Revaluation of Assets if it is not a case of a "lucky-buy."

The above opinions differ in their answers to two questions, viz: (1) Does the negative goodwill calculated in (Ac) of Rules I and II have any effect on the goodwill of the other constituent companies? (2) Can a "lucky-buy" be assumed? The Income Tax officials (the present author has the same opinion) answer both questions in the negative and hold opinion (c) above. For brevity, the Income Tax officials usually write down the Plant account for the excess negative goodwill.

The purchase price fixes values until adjustments in these values are proven. If a company's stock can, under ordinary market conditions, be purchased for less than its book value some of the assets of that company are inflated. This inflation is in the assets of the company the stock of which is being analyzed, and therefore this negative goodwill has no effect on the goodwill of the other companies.

The adjustment in the valuation of assets of a subsidiary for the excess of its negative over its positive goodwill is vitally important for depreciation and depletion purposes. Assume Company X buys all the stock of Company Y at 80 at a time when Company Y's balance sheet consisted of Fixed Assets (life 10 years) $50,000, and Capital Stock $50,000. The consolidated profit is affected by $4,000 instead of $5,000 depreciation on Company Y's assets because the cost of the assets to the group is only $40,000.

Par	$50,000
Surplus	nil
Goodwill	−10,000
Carrying Value	$40,000
Fixed Assets	$50,000
Less Reserve for Revaluation (Negative Goodwill)	10,000
Depreciable Value (Cost)	$40,000
Depreciation Rate	10%
Annual Depreciation	$ 4,000

Comparison of Rules.—Disregarding for sake of simplicity the effect of the rather unusual transactions involving liquidating and stock dividends, sale of a portion of the controlling investment, and treasury stock, the elimination figures under the two methods of accounting for the controlling investment in the stock of a subsidiary are:

COST VALUE METHOD ELIMINATIONS (Acquisition Figures)	ACTUAL VALUE METHOD ELIMINATIONS (Present Figures)	DIFFERENCE
Par Purchased	Par Owned	None
Surplus Purchased	Surplus Owned	Plus Profits, less Losses and Dividends
Goodwill Purchased	Goodwill Owned	None
Purchase Price	Carrying Value	Plus Profits, less Losses and Dividends

Both the Cost Value and Actual Value Methods accept the purchase price as the initial factor in calculating and analyzing the carrying value of the stock. The Cost Value Method constantly holds to the original purchase price and its analysis. The Actual Value Method, however, calculates the carrying value by adding profits to and deducting losses and dividends from, the original purchase price, and then secures the same result as the Cost Value Method by eliminating the surplus owned at date of the consolidated balance sheet instead of the surplus purchased at the acquisition of the stock.

As to simplicity and utility, there is little difference between the methods. The Actual Value Method is slightly more complicated in ordinary transactions and much more complicated in treasury stock transactions, but is decidedly simpler in transactions involving liquidating and stock dividends. The Actual Value Method has the advantage of carrying the controlling stock at a value that makes the holding company's individual surplus equal the consolidated surplus. The Actual Value Method, therefore, would enable the holding company's comptroller to get a true picture of his concern's net worth without making a consolidated balance sheet. The Cost Value Method is required for use in the Income Tax Unit because it is im-

practical to report all the annual changes since date of acquisition (such data must be available to audit under the Actual Value Method).

Cases.—The chief variations in the underlying conditions affecting a controlling investment in a subsidiary, purchased at one time on the open market, are:

A. When surplus existed at date of acquisition:
   (a) Purchased at book value.
   (b) Purchased at less than book value.
   (c) Purchased at more than book value.

B. When deficit existed at date of acquisition:
   (a) Purchased at book value.
   (b) Purchased at less than book value.
   (c) Purchased at more than book value.

C. When neither surplus nor deficit existed at date of acquisition:
   (a) Purchased at book value.
   (b) Purchased at less than book value.
   (c) Purchased at more than book value.

Case Aa

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	Capital Stock	$100,000	$50,000
Goodwill	10,000	5,000	Surplus	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets, Company X purchased 400 shares of Company Y's stock at 110 on the open market. Make a consolidated balance sheet as of January 1, 1926, if each company made a net operating profit of $8,000 during 1925.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C.B.S.
Other Assets	$ 64,000	$58,000	.....	.....	$122,000
Y's Stock	44,000	.....	.....	$44,000	.....
Goodwill	10,000	5,000	.....	.....	15,000
	$118,000	$63,000			$137,000

	Co. X	Co. Y	Eliminations		C.B.S.
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	18,000	10,400	4,000	.....	24,400
Outside	.....	2,600	.....	.....	2,600
	$118,000	$63,000			$137,000

(a) $4/5 \times \$5,000 = \$4,000$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C.B.S.
Other Assets	$ 64,000	$58,000	.....	.....	$122,000
Y's Stock (a)	50,400	.....	.....	$50,400	.....
Goodwill	10,000	5,000	.....	.....	15,000
	$124,400	$63,000			$137,000
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	24,400	10,400	10,400	.....	24,400
Outside	.....	2,600	.....	.....	2,600
	$124,400	$63,000			$137,000

(a) For calculation of balance see Case A in Chapter I (page 14).

The elimination entry shows no goodwill because the purchase price and book value of the stock purchased were both $110 a share.

Case Ab

Same as Case Aa if Company Y's stock had been purchased at 90 instead of at 110.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C.B.S.
Other Assets	$ 72,000	$58,000	.....	.....	$130,000
Y's Stock	36,000	.....	.....	$36,000	.....
Goodwill	10,000	5,000	.....	5,000	10,000
	$118,000	$63,000			$140,000
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	18,000	10,400	4,000	.....	24,400
Outside	.....	2,600	.....	.....	2,600
Revaluation Reserve	.....	.....	.....	3,000	3,000
	$118,000	$63,000			$140,000

(a) $4/5 \times \$5,000 = \$4,000$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C.B.S.
Other Assets	$ 72,000	$58,000	.....	.....	$130,000
Y's Stock (a)	42,400	.....	.....	$42,400	.....
Goodwill	10,000	5,000	.....	5,000	10,000
	$124,400	$63,000			$140,000
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	24,400	10,400	10,400	.....	24,400
Outside	.....	2,600	.....	.....	2,600
Revaluation Reserve	.....	.....	.....	3,000	3,000
	$124,400	$63,000			$140,000

(a) $\$36,000 + (4/5 \times \$8,000) = \$42,400$

As the purchase price of the stock was $20 a share less than its book value, the elimination entry for the 400 shares shows $8,000 negative goodwill.

Case Ac ✓

Same as Case Aa if Company Y's stock had been purchased at 125 instead of at 110.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C.B.S.
Other Assets	$ 58,000	$58,000	.....	.....	$116,000
Y's Stock	50,000	.....	.....	$50,000	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$118,000	$63,000			$137,000
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	18,000	10,400	4,000	.....	24,400
Outside	.....	2,600	.....	.....	2,600
	$118,000	$63,000			$137,000

(a) $4/5 \times \$5,000 = \$4,000$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C.B.S.
Other Assets	$ 58,000	$58,000	.....	.....	$116,000
Y's Stock (a)	56,400	.....	.....	$56,400	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$124,400	$63,000			$137,000

	Co. X	Co. Y	Eliminations		C.B.S.
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	24,400	10,400	10,400	.....	24,400
Outside	.....	2,600	.....	.....	2,600
	$124,400	$63,000			$137,000

(a) $\$50,000 + (4/5 \times \$8,000) = \$56,400$

The $6,000 positive goodwill in the elimination entry equals the product of 400, the number of shares purchased, multiplied by $15, the excess of the purchase price over the book value of each share.

Case Ba

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$39,000	Capital Stock	$100,000	$50,000
Goodwill	10,000	5,000	Surplus	10,000	*6,000
	$110,000	$44,000		$110,000	$44,000

* Denotes deficit.

On January 1, 1925, the date of the above balance sheets, Company X purchased 300 shares of Company Y's stock at 88 on the open market. Make a consolidated balance sheet as of January 1, 1926, if each company lost $3,000 during 1925.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C.B.S.
Other Assets	$ 70,600	$36,000	.....	.....	$106,600
Y's Stock	26,400	.....	.....	$26,400	.....
Goodwill	10,000	5,000	.....	.....	15,000
	$107,000	$41,000			$121,600
Capital Stock:					
Inside	$100,000	$30,000	$30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside (a)	7,000	*5,400	.....	3,600	5,200
Outside	.....	*3,600	.....	.....	*3,600
	$107,000	$41,000			$121,600

* Denotes deficit.

(a) $3/5 \times \$6,000 = \$3,600$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,600	$36,000	.....	.....	$106,600
Y's Stock (a)	24,600	.....	.....	$24,600	.....
Goodwill	10,000	5,000	.....	.....	15,000
	$105,200	$41,000			$121,600
Capital Stock:					
Inside	$100,000	$30,000	$30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside	5,200	*5,400	.....	5,400	5,200
Outside	.....	*3,600	.....	.....	*3,600
	$105,200	$41,000			$121,600

* Denotes deficit.

(a) For calculation of balance see Case B in Chapter I (page 15).

The elimination entry shows no goodwill because the purchase price and the book value of the stock purchased were both $88 a share.

Case Bb

Same as Case Ba if Company Y's stock had been purchased at 85 instead of at 88.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 71,500	$36,000	.....	.....	$107,500
Y's Stock	25,500	.....	.....	$25,500	.....
Goodwill	10,000	5,000	.....	900	14,100
	$107,000	$41,000			$121,600
Capital Stock:					
Inside	$100,000	$30,000	$30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside (a)	7,000	*5,400	.....	3,600	5,200
Outside	.....	*3,600	.....	.....	*3,600
	$107,000	$41,000			$121,600

* Denotes deficit.

(a) $3/5 \times \$6,000 = \$3,600$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 71,500	$36,000	.....	.....	$107,500
Y's Stock (a)	23,700	.....	.....	$23,700	.....
Goodwill	10,000	5,000	.....	900	14,100
	$105,200	$41,000			$121,600
Capital Stock:					
Inside	$100,000	$30,000	$30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside	5,200	*5,400	.....	5,400	5,200
Outside	.....	*3,600	.....	.....	*3,600
	$105,200	$41,000			$121,600

* Denotes deficit.

(a) $25,500 − (3/5 × $3,000) = $23,700

As the purchase price of the stock was $3 a share less than its book value, the elimination entry for the 300 shares shows $900 negative goodwill.

Case Bc

Same as Case Ba if Company Y's stock had been purchased at 90 instead of at 88.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$36,000	.....	.....	$106,000
Y's Stock	27,000	.....	.....	$27,000	.....
Goodwill	10,000	5,000	$ 600	.....	15,600
	$107,000	$41,000			$121,600
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside (a)	7,000	*5,400	.....	3,600	5,200
Outside	.....	*3,600	.....	.....	*3,600
	$107,000	$41,000			$121,600

* Denotes deficit.

(a) 3/5 × $6,000 = $3,600

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$36,000	.....	.....	$106,000
Y's Stock (a)	25,200	.....	.....	$25,200	.....
Goodwill	10,000	5,000	$ 600	.....	15,600
	$105,200	$41,000			$121,600
Capital Stock.					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside	5,200	*5,400	.....	5,400	5,200
Outside	.....	*3,600	.....	.....	*3,600
	$105,200	$41,000			$121,600

* Denotes deficit.

(a) $\$27,000 - (3/5 \times \$3,000) = \$25,200$

The $600 positive goodwill in the elimination entry equals the product of 300, the number of shares bought multiplied by $2, the excess of the purchase price over the book value of each share.

Case Ca ✓

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$ 90,000	$45,000	Capital Stock	$100,000	$50,000
Goodwill	10,000	5,000			
	$100,000	$50,000		$100,000	$50,000

On January 1, 1925, the date of the above balance sheets, Company X purchased 450 shares of Company Y's stock at par on the open market. Make a consolidated balance sheet as of January 1, 1926, if each company made a net operating profit of $10,000 during 1925, and if each company paid an $8,000 cash dividend on December 31, 1925.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 54,200	$47,000	.....	.....	$101,200
Y's Stock	45,000	.....	.....	$45,000	.....
Goodwill	10,000	5,000	.....	.....	15,000
	$109,200	$52,000			$116,200

	Co. X	Co. Y	Eliminations		C. B. S.
Capital Stock:					
Inside	$100,000	$45,000	$45,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside	9,200	1,800	.....	.....	11,000
Outside	.....	200	.....	.....	200
	$109,200	$52,000			$116,200

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 54,200	$47,000	.....	.....	$101,200
Y's Stock (a)	46,800	.....	.....	$46,800	.....
Goodwill	10,000	5,000	.....	.....	15,000
	$111,000	$52,000			$116,200
Capital Stock:					
Inside	$100,000	$45,000	$45,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside	11,000	1,800	1,800	.....	11,000
Outside	.....	200	.....	.....	200
	$111,000	$52,000			$116,200

(a) For calculation of balance see Case C in Chapter I (page 15).

The elimination entry shows no goodwill because the purchase price and the book value of the stock purchased were both $100 a share.

Case Cb

Same as Case Ca if Company Y's stock had been purchased at 90 instead of at par.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 58,700	$47,000	.....	.....	$105,700
Y's Stock	40,500	.....	.....	$40,500	.....
Goodwill	10,000	5,000	.....	4,500	10,500
	$109,200	$52,000			$116,200
Capital Stock:					
Inside	$100,000	$45,000	$45,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside	9,200	1,800	.....	.....	11,000
Outside	.....	200	.....	.....	200
	$109,200	$52,000			$116,200

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 58,700	$47,000	.....	.....	$105,700
Y's Stock (a)	42,300	.....	.....	$42,300	.....
Goodwill	10,000	5,000	.....	4,500	10,500
	$111,000	$52,000			$116,200
Capital Stock:					
Inside	$100,000	$45,000	$45,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside	11,000	1,800	1,800	.....	11,000
Outside	.....	200	.....	.....	200
	$111,000	$52,000			$116,200

(a) $\$40,500 + (45/50 \times \$10,000) - (45/50 \times \$8,000) = \$42,300$

As the purchase price of the stock was $10 a share less than its book value, the elimination entry for the 450 shares shows $4,500 negative goodwill.

Case Cc ✓

Same as Case Ca if Company Y's stock had been purchased at 105 instead of at par.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 51,950	$47,000	.....	.....	$ 98,950
Y's Stock	47,250	.....	.....	$47,250	.....
Goodwill	10,000	5,000	$ 2,250	.....	17,250
	$109,200	$52,000			$116,200
Capital Stock:					
Inside	$100,000	$45,000	45,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside	9,200	1,800	.....	.....	11,000
Outside	.....	200	.....	.....	200
	$109,200	$52,000			$116,200

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 51,950	$47,000	.....	.....	$ 98,950
Y's Stock (a)	49,050	.....	.....	$49,050	.....
Goodwill	10,000	5,000	$ 2,250	.....	17,250
	$111,000	$52,000			$116,200

	Co. X	Co. Y	Eliminations		C. B. S.
Capital Stock:					
Inside	$100,000	$45,000	$45,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside	11,000	1,800	1,800	.....	11,000
Outside	.....	200	.....	.....	200
	$111,000	$52,000			$116,200

(a) $\$47,250 + (45/50 \times \$10,000) - (45/50 \times \$8,000) = \$49,050$

The $2,250 positive goodwill in the elimination entry equals the product of 450, the number of shares purchased, multiplied by $5, the excess of the purchase price over the book value of each share.

CHAPTER III

STOCK PURCHASED DIRECTLY FROM SUBSIDIARY

As the elimination entries for stock purchased directly from the subsidiary depend upon whether the stock was all acquired at one time or in blocks at several dates, the first case will be studied immediately and the latter will be investigated later in Chapter VII.

Rule III

Under the Cost Value Method, analyze and eliminate the carrying value of the controlling investment in the common stock of a subsidiary, purchased at one time directly from the subsidiary, under Rule I, (pages 26-27), except that the balances of the net worth accounts at date of acquisition used in Rule I, Part A, must be the balances immediately after the issue of all the stock sold by the subsidiary on the date the holding company purchased its investment.

Rule IV

Under the Actual Value Method, analyze and eliminate the carrying value of the controlling investment in the common stock of a subsidiary, purchased at one time directly from the subsidiary, under Rule II (pages 27-28).

A comparison of Rules III and IV with Rules I and II, respectively, shows that the accounting for "direct" and

"open market" purchases of subsidiary's stock is identical under the Actual Value Method, and that the only difference under the Cost Value Method is that the date of acquisition must be definitely fixed as the moment after the sale of all the stock sold by the subsidiary on the date the holding company purchased its investment. The reason for this difference between Rules I and III is the fact that in "direct" purchases the surplus purchased by the holding company is affected by the premium and discount on the newly issued or sold stock.

Sales to the minority interests made on the day the holding company purchased its investment may be classified as:

(a) Sales made prior to the holding company's purchase.
(b) Sales made after the holding company's purchase but contemplated when the controlling investment was made.
(c) Sales made after the holding company's purchase and constituting independent transactions.

Practically all "direct" sales come in the first or second classes and follow Rules III and IV. In fact, all "direct" sales should be assumed to be in either the first or second class unless decided proof to the contrary is available. Class (c) sales follow Rules XI and XII (see Chapter VI).

Cases.—The chief variations in the underlying conditions affecting a controlling investment in a subsidiary, purchased at one time directly from the subsidiary, are:

A. At organization of subsidiary:
  (a) All subscribers for stock pay same price.
  (b) Subscribers for stock do not all pay same price.
    I. When holding company pays more than minority.
    II. When holding company pays less than minority.

B. After organization of subsidiary:

(a) All new subscribers for stock pay same price.
I. When price of new stock is the book value of old.
II. When price of new stock is less than book value of old.
III. When price of new stock is more than book value of old.

(b) Subscribers for stock do not all pay same price.
I. When holding company pays more than minority.
(1) When price of new stock is less than book value of old.
(2) When price of new stock is more than book value of old.

II. When holding company pays less than minority.
(1) When price of new stock is less than book value of old.
(2) When price of new stock is more than book value of old.

Case Aa

	Co. X		Co. X
Other Assets	$100,000	Capital Stock	$100,000
Goodwill	10,000	Surplus	10,000
	$110,000		$110,000

On January 1, 1925, the date of the above balance sheet, Company X organized Company Y, the subscription list being Company X 400 shares at 110 and Arthur Jones, an outsider, 100 shares at 110. Make a consolidated balance sheet as of January 1, 1926, if each company made a net operating profit of $10,000 during 1925.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 66,000	$65,000	.....	.....	$131,000
Y's Stock	44,000	.....	.....	$44,000	.....
Goodwill	10,000	.....	.....	.....	10,000
	$120,000	$65,000			$141,000
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	20,000	12,000	4,000	.....	28,000
Outside	.....	3,000	.....	.....	3,000
	$120,000	$65,000			$141,000

(a) $4/5 \times (\$4,000 + \$1,000) = \$4,000$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 66,000	$65,000	.....	.....	$131,000
Y's Stock (a)	52,000	.....	.....	$52,000	.....
Goodwill	10,000	.....	.....	.....	10,000
	$128,000	$65,000			$141,000
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	28,000	12,000	12,000	.....	28,000
Outside	.....	3,000	.....	.....	3,000
	$128,000	$65,000			$141,000

(a) For calculation of balance see Case D in Chapter I (page 16).

Since the book value received exactly equals the payment therefor, no goodwill can arise in sales of stock by the subsidiary when all stock is sold at the same price. It makes no difference in the goodwill, if, in such sales, the stock is sold at par, or at a premium, or at a discount.

Case AbI ✓

Same as Case Aa if Arthur Jones had paid $108 a share instead of $110.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 66,000	$64,800	.....	.....	$130,800
Y's Stock	44,000	.....	.....	$44,000	.....
Goodwill	10,000	.....	$ 160	.....	10,160
	$120,000	$64,800			$140,960
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	20,000	11,840	3,840	.....	28,000
Outside	.....	2,960	.....	.....	2,960
	$120,000	$64,800			$140,960

(a) $4/5 \times (\$4,000 + \$800) = \$3,840$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 66,000	$64,800	.....	.....	$130,800
Y's Stock (a)	52,000	.....	.....	$52,000	.....
Goodwill	10,000	.....	$ 160	.....	10,160
	$128,000	$64,800			$140,960
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	28,000	11,840	11,840	.....	28,000
Outside	.....	2,960	.....	.....	2,960
	$128,000	$64,800			$140,960

(a) For calculation of balance see Case E in Chapter I (page 16).

Since Arthur Jones paid \$2 a share less than Company X, there is a shortage of \$200 in the premium. Company X's ownership in Company Y must stand four-fifths or \$160 of this shortage. The goodwill really is Jones' personal goodwill for otherwise he would not have been granted such a favorable price. Transactions like Case AbI occur in business when managers and other important employees are allowed to buy stock advantageously.

Case AbII

Same as Case Aa if Arthur Jones had paid \$115 a share instead of \$110.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 66,000	$65,500	.....	.....	$131,500
Y's Stock	44,000	.....	.....	$44,000	.....
Goodwill	10,000	.....	.....	.....	10,000
	$120,000	$65,500			$141,500
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	20,000	12,400	4,400	.....	28,000
Outside	.....	3,100	.....	.....	3,100
Capital Surplus:					
Inside	.....	.....	.....	400	400
	$120,000	$65,500			$141,500

(a) $4/5 \times (\$4,000 + \$1,500) = \$4,400$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 66,000	$65,500	.....	.....	$131,500
Y's Stock (a)	52,000	.....	.....	$52,000	.....
Goodwill	10,000	.....	.....	.....	10,000
	$128,000	$65,500			$141,500
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	28,000	12,400	12,400	.....	28,000
Outside	.....	3,100	.....	.....	3,100
Capital Surplus:					
Inside	.....	.....	.....	400	400
	$128,000	$65,500			$141,500

(a) $\$44,000 + (4/5 \times \$10,000) = \$52,000$

The negative goodwill was credited to Capital Surplus—Inside, instead of to Reserve for Revaluation of Assets on the natural assumption that all subscribers paid in cash. Since Arthur Jones paid $5 a share more than Company X, there is $500 additional premium. Company X's ownership in Company Y will take four-fifths or $400 of this premium.

Case BaI

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$5,000	Capital Stock	$100,000	$5,000
Goodwill	10,000	2,000	Surplus	10,000	2,000
	$110,000	$7,000		$110,000	$7,000

On January 1, 1925, the date of the above balance sheets, Company Y made the following sales of its own unissued stock: Company X 400 shares at 140, and Charles W. Smith 50 shares at 140. If Company X did not own any of Company Y's stock prior to January 1, 1925, and if each company made a net operating profit of $6,000 during 1925, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 50,000	$74,000	.....	.....	$124,000
Y's Stock	56,000	.....	.....	$56,000	.....
Goodwill	10,000	2,000	.....	.....	12,000
	$116,000	$76,000			$136,000
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	16,000	20,800	16,000	.....	20,800
Outside	.....	5,200	.....	.....	5,200
	$116,000	$76,000			$136,000

(a) $4/5 \times (\$2,000 + \$16,000 + \$2,000) = \$16,000$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 50,000	$74,000	.....	.....	$124,000
Y's Stock (a)	60,800	.....	.....	$60,800	.....
Goodwill	10,000	2,000	.....	.....	12,000
	$120,800	$76,000			$136,000
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	20,800	20,800	20,800	.....	20,800
Outside	.....	5,200	.....	.....	5,200
	$120,800	$76,000			$136,000

(a) For calculation of balance see Case F in Chapter I (page 16).

Since the price of the new stock was the book value of the old, nobody gained at the expense of somebody else and there was no goodwill.

Case BaII

Same as Case BaI if all new stock sold had been sold at 110 instead of at 140.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 62,000	$60,500	.....	.....	$122,500
Y's Stock	44,000	.....	.....	$44,000	.....
Goodwill	10,000	2,000	.....	1,200	10,800
	$116,000	$62,500			$133,300
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	16,000	10,000	5,200	.....	20,800
Outside	.....	2,500	.....	.....	2,500
	$116,000	$62,500			$133,300

(a) $4/5 \times (\$2,000 + \$4,000 + \$500) = \$5,200$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 62,000	$60,500	.....	.....	$122,500
Y's Stock (a)	48,800	.....	.....	$48,800	.....
Goodwill	10,000	2,000	.....	1,200	10,800
	$120,800	$62,500			$133,300
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	20,800	10,000	10,000	.....	20,800
Outside	.....	2,500	.....	.....	2,500
	$120,800	$62,500			$133,300

(a) $\$44,000 + (4/5 \times \$6,000) = \$48,800$

Each share of new stock was sold at \$30 less than the book value of the old stock. As the old stockholders stood one tenth of this amount each share carries \$3 negative goodwill. As the negative goodwill on Mr. Smith's stock does not affect the consolidated balance sheet, it is ignored. The negative goodwill on Company X's purchase is \$1,200 ($\$3 \times 400$).

Case BaIII

Same as Case BaI if all new stock sold had been sold at 150 instead of at 140.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 46,000	$78,500	.....	.....	$124,500
Y's Stock	60,000	.....	.....	$60,000	.....
Goodwill	10,000	2,000	$ 400	.....	12,400
	$116,000	$80,500			$136,900
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	16,000	24,400	19,600	.....	20,800
Outside	.....	6,100	.....	.....	6,100
	$116,000	$80,500			$136,900

(a) $4/5 \times (\$2,000 + \$20,000 + \$2,500) = \$19,600$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 46,000	$78,500	.....	.....	$124,500
Y's Stock (a)	64,800	.....	.....	$64,800	.....
Goodwill	10,000	2,000	$ 400	.....	12,400
	$120,800	$80,500			$136,900
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	20,800	24,400	24,400	.....	20,800
Outside	.....	6,100	.....	.....	6,100
	$120,800	$80,500			$136,900

(a) $\$60,000 + (4/5 \times \$6,000) = \$64,800$

Each share of new stock was sold at \$10 more than the book value of the old stock. As the old stockholders received one tenth of this amount, each share carries \$1 positive goodwill. As the positive goodwill on Mr. Smith's stock does not affect the consolidated balance sheet, it is ignored. The positive goodwill on Company X's purchase is \$400 ($\$1 \times 400$).

Case BbI1

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$1,000	Capital Stock	$100,000	$5,000
Goodwill	10,000	3,000	Surplus	10,000	*1,000
	$110,000	$4,000		$110,000	$4,000

* Denotes deficit.

On January 1, 1925, the date of the above balance sheets, Company Y made the following sales of its own unissued stock: Company X 400 shares at 72 and J. R. Ballinger 50 shares at 70. If Company X did not own any of Company Y's stock prior to January 1, 1925, and if each company made a net operating profit of $15,000 during 1925, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 86,200	$48,300	.....	.....	$134,500
Y's Stock	28,800	.....	.....	$28,800	.....
Goodwill	10,000	3,000	.....	240	12,760
	$125,000	$51,300			$147,260
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	25,000	1,040	.....	10,960	37,000
Outside	.....	260	.....	.....	260
	$125,000	$51,300			$147,260

(a) $4/5 \times (\$1,000 + \$11,200 + \$1,500) = \$10,960$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 86,200	$48,300	.....	.....	$134,500
Y's Stock (a)	40,800	.....	.....	$40,800	.....
Goodwill	10,000	3,000	.....	240	12,760
	$137,000	$51,300			$147,260
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	37,000	1,040	1,040	.....	37,000
Outside	.....	260	.....	.....	260
	$137,000	$51,300			$147,260

(a) For calculation of balance see Case G in Chapter I (page 17).

Assuming that the sale to Company X was made either after the sale to Mr. Ballinger or in contemplation thereof, the effective book value per share of the outstanding stock prior to Company X's purchase was $75 (Capital Stock $10,000, Deficit $2,500). Since Company X paid $1,200 [400 × ($75—$72)] less than the effective book value and since the minority stood one-fifth of this amount, the negative goodwill on Company X's purchase was $240 (1/5 × $1,200).

Case BbI2

Same as Case BbI1 if Company X had paid $84 a share and J. R. Ballinger had paid $81 a share.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 81,400	$53,650	.....	.....	$135,050
Y's Stock	33,600	.....	.....	$33,600	.....
Goodwill	10,000	3,000	$ 280	.....	13,280
	$125,000	$56,650			$148,330
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	25,000	5,320	.....	6,680	37,000
Outside	.....	1,330	.....	.....	1,330
	$125,000	$56,650			$148,330

(a) 4/5 × ($1,000 + $6,400 + $950) = $6,680

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 81,400	$53,650	.....	.....	$135,050
Y's Stock (a)	45,600	.....	.....	$45,600	.....
Goodwill	10,000	3,000	$ 280	.....	13,280
	$137,000	$56,650			$148,330
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	37,000	5,320	5,320	.....	37,000
Outside	.....	1,330	.....	.....	1,330
	$137,000	$56,650			$148,330

(a) $33,600 + (4/5 × $15,000) = $45,600

After recording the sale to Mr. Ballinger the book value per share of the stock was $80.50 (Capital Stock $10,000, Deficit $1,950). Since Company X paid $1,400 [400 × ($84 —$80.50)] more than the effective book value and since the minority received one-fifth of this amount, the positive goodwill on Company X's purchase was $280 (1/5 × $1,400).

Case BbII1

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$ 90,000	$2,000	Capital Stock	$100,000	$5,000
Goodwill	10,000	3,000			
	$100,000	$5,000		$100,000	$5,000

On January 1, 1925, the date of the above balance sheets, Company Y made the following sales of its own unissued stock: Company X 350 shares at 98 and Charles K. Hoover 100 shares at 99. If Company X did not own any of Company Y's stock prior to January 1, 1925, and if each company made a net operating profit of $10,000 during 1925, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 65,700	$56,200	.....	.....	$121,900
Y's Stock	34,300	.....	.....	$34,300	.....
Goodwill	10,000	3,000	.....	140	12,860
	$110,000	$59,200			$134,760
Capital Stock:					
Inside	$100,000	$35,000	$35,000	.....	$100,000
Outside	.....	15,000	.....	.....	15,000
Surplus:					
Inside (a)	10,000	6,440	.....	560	17,000
Outside	.....	2,760	.....	.....	2,760
	$110,000	$59,200			$134,760

(a) 35/50 × ($700 + $100) = $560

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 65,700	$56,200	.....	.....	$121,900
Y's Stock (a)	41,300	.....	.....	$41,300	.....
Goodwill	10,000	3,000	.....	140	12,860
	$117,000	$59,200			$134,760

	Co. X	Co. Y	Eliminations		C. B. S.
Capital Stock:					
Inside	$100,000	$35,000	$35,000	.....	$100,000
Outside	.....	15,000	.....	.....	15,000
Surplus:					
Inside	17,000	6,440	6,440	.....	17,000
Outside	.....	2,760	.....	.....	2,760
	$117,000	$59,200			$134,760

(a) $\$34,300 + (35/50 \times \$10,000) = \$41,300$

After recording the sale to Mr. Hoover the book value per share of Company Y's stock was \$99.33 1/3 (Capital Stock \$15,000, Deficit \$100). Since Company X paid \$466.66 2/3 [350 × (\$99.33 1/3—\$98)] less than the effective book value and since the minority stood fifteen-fiftieths of this amount, the negative goodwill on Company X's purchase was \$140 (15/50 × \$466.66 2/3).

Case BbII2

Same as Case BbII1 if Company X had paid \$101 a share and Charles K. Hoover had paid \$103 a share.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S
Other Assets	$ 64,650	$57,650	.....	.....	$122,300
Y's Stock	35,350	.....	.....	$35,350	.....
Goodwill	10,000	3,000	.....	105	12,895
	$110,000	$60,650			$135,195
Capital Stock:					
Inside	$100,000	$35,000	$35,000	.....	$100,000
Outside	.....	15,000	.....	.....	15,000
Surplus:					
Inside (a)	10,000	7,455	455	.....	17,000
Outside	.....	3,195	.....	.....	3,195
	$110,000	$60,650			$135,195

(a) $35/50 \times (\$350 + \$300) = \$455$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 64,650	$57,650	.....	.....	$122,300
Y's Stock (a)	42,350	.....	.....	$42,350	.....
Goodwill	10,000	3,000	.....	105	12,895
	$117,000	$60,650			$135,195

	Co. X	Co. Y	Eliminations		C. B. S.
Capital Stock:					
Inside	$100,000	$35,000	$35,000	.....	$100,000
Outside	.....	15,000	.....	.....	15,000
Surplus:					
Inside	17,000	7,455	7,455	.....	17,000
Outside	.....	3,195	.....	.....	3,195
	$117,000	$60,650			$135,195

(a) $\$35,350 + (35/50 \times \$10,000) = \$42,350$

After recording the sale to Mr. Hoover the book value per share of Company Y's stock was $102 (Capital Stock $15,000, Surplus $300). Since Company X paid $350 [$350 \times ($102—$101)$] less than the effective book value and since the minority stood fifteen-fiftieths of this amount, the negative goodwill on Company X's purchase was $105 ($15/50 \times \$350$).

CHAPTER IV

GRANDSON RELATIONSHIPS

"Family Tree."—When the affiliation includes both a major and a minor holding company, it is essential that a "family tree" be prepared as the companies can not all be consolidated at once, because such a procedure would misstate the minorities, and, in the case of negative goodwill in excess of positive goodwill, would misstate the consolidated goodwill.

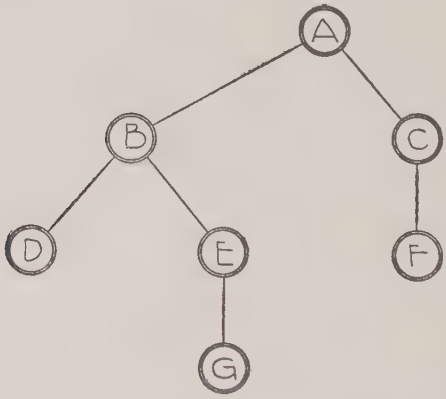

Fig. 1

Assume that Company A controls Company B and Company C; that Company B controls Company D and Company E; that Company C controls Company F, and that Company E controls Company G. The resulting "family tree" is shown in Fig. 1, and the "family tree" with the steps necessary to consolidate indicated thereon is shown in Fig. 2.

After a "family tree" has been drafted, the ascertaining of the steps necessary to consolidate is simple as it is always neces-

sary to combine the lowest tier with the related elements in the next higher tier. Therefore, for the "family tree" in Fig. 1 it is necessary to consolidate, first, Company G with Company E; second, Company D and Company E and subsidiary with Company B; third, Company F with Company C; and fourth, Company B and its subsidiaries and Company C and its sub-

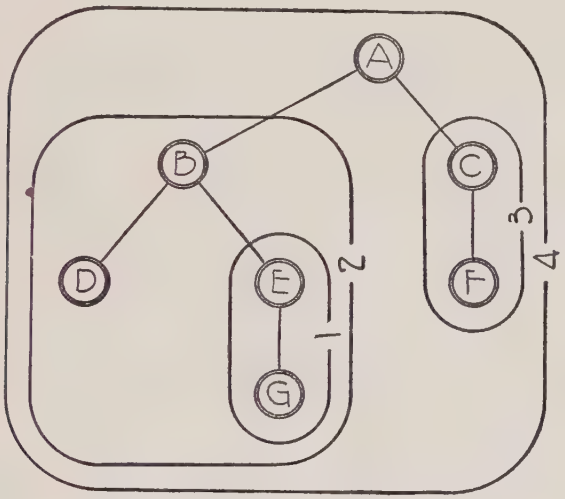

Fig. 2

sidiary with Company A. In other words, only father and son relationships can be consolidated in the same step.

Rule V

Under the Cost Value Method, the carrying value of the controlling intercompany stock investment under grandson relationships must be analyzed and eliminated under Rules I and III, except that the procedure must be broken into steps so that no more distantly related companies than father and son are consolidated in the same step.

Great care must be exercised in using Rule V to be sure to secure the correct surplus at date of acquisition, it being necessary in case of a purchase of the stock of a minor holding company to find the consolidated surplus of said minor holding company and its subsidiaries at the date the major holding company acquired control.

Rule VI

Under the Actual Value Method, the carrying value of the controlling intercompany stock investment under grandson relationships must be analyzed and eliminated under Rules II and IV, except that the procedure must be broken into steps so that no more distantly related companies than father and son are consolidated in the same step.

Cases.—The chief variations in the underlying conditions affecting controlling intercompany stock investments under grandson relationships are:

A. Grandson acquired by a subsidiary.
   (a) Acquired at organization of grandson.
   (b) Acquired by open market purchase.
B. Purchase of stock of company owning stock in third company.
C. When there is more than one son.

There may be very numerous subdivisions in the above cases. For instance, Case Aa could have subdivisions for all the cases given in Chapters II and III in the purchase of the son by the major holding company, and for every subdivision of Case A given in Chapter III in the acquisition of the grandson by the son. These differences have been omitted as they would merely be repetitions of the points covered in the previous illustrations. The really vital variations depend on the

source of the stock and whether or not the major holding company bought into an affiliation.

Case Aa

	Co. X	Co. Y		Co. X	Co. Y
Other Assets.....	$100,000	$50,000	Capital Stock.....	$100,000	$50,000
Goodwill.....	10,000	5,000	Surplus.....	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1924, the date of the above balance sheets, Company X purchased 400 shares of Company Y's stock at

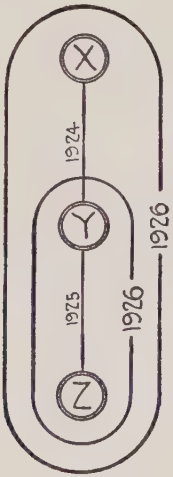

Fig. 3

125 on the open market. On January 1, 1925, Company Z was organized, the subscription list at 101 being: Company Y 300 shares, J. A. Sutton 100 shares. If each company has made an annual operating profit of $10,000 since organization, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

The family tree, under the Cost Value Method, is shown by Fig. 3.

	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$ 39,700	$50,400	.....	.....	$ 90,100
Z's Stock	30,300	.....	.....	$30,300	.....
Goodwill	5,000	.....	.....	.....	5,000
	$ 75,000	$50,400			$ 95,100
Capital Stock:					
Inside	$ 50,000	$30,000	$30,000	.....	$ 50,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	25,000	7,800	300	.....	32,500
Outside	.....	2,600	.....	.....	2,600
	$ 75,000	$50,400			$ 95,100

(a) $3/4 \times (\$300 + \$100) = \$300$

	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 70,000	$90,100	.....	.....	$160,100
Y's Stock	50,000	.....	.....	$50,000	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$130,000	$95,100			$181,100
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	30,000	26,000	4,000	.....	52,000
Outside	.....	6,500	.....	.....	6,500
Co. Z's Minority (b)	.....	12,600	.....	.....	12,600
	$130,000	$95,100			$181,100

(a) $4/5 \times \$5,000 = \$4,000$
(b) \$10,000 (Capital Stock) + \$2,600 (Surplus) = \$12,600

Solution—Actual Value Method

Since Company X does not buy into a minor holding company, the family tree is the same under both the Cost Value Method, and the Actual Value Method (Fig. 3).

	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$ 39,700	$50,400	.....	.....	$ 90,100
Z's Stock (a)	37,800	.....	.....	$37,800	.....
Goodwill	5,000	.....	.....	.....	5,000
	$ 82,500	$50,400			$ 95,100
Capital Stock:					
Inside	$ 50,000	$30,000	$30,000	.....	$ 50,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	32,500	7,800	7,800	.....	32,500
Outside	.....	2,600	.....	.....	2,600
	$ 82,500	$50,400			$ 95,100

(a) $\$30,300 + (3/4 \times \$10,000) = \$37,800$

	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 70,000	$90,100	.....	.....	$160,100
Y's Stock (a)	72,000	.....	.....	$72,000	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$152,000	$95,100			$181,100
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	52,000	26,000	26,000	.....	52,000
Outside	.....	6,500	.....	.....	6,500
Co. Z's Minority (b)	.....	12,600	.....	.....	12,600
	$152,000	$95,100			$181,100

(a) For calculation of balance see Case H, Chapter I (page 17).
(b) $10,000 (Capital Stock) + $2,600 (Surplus) = $12,600

The absence of goodwill in the elimination entry for Company Z's stock on Company Y's books agrees with the findings in Case Aa in Chapter III (page 44). The point of technique used in regard to Company Z's minority on the final working sheets is recommended because handling Company Z's minority as a separate item keeps the separation clear for the formal rewriting of the consolidated balance sheet, and makes, under the Actual Value Method, the Surplus-Inside figure for the subsidiary exactly agree with the Surplus item in the elimination entry.

Case Ab

	Co. X	Co. Y	Co. Z		Co. X	Co. Y	Co. Z
Other Assets	$100,000	$50,000	$40,000	Capital Stock	$100,000	$50,000	$40,000
Goodwill	10,000	5,000	4,000	Surplus	10,000	5,000	4,000
	$110,000	$55,000	$44,000		$110,000	$55,000	$44,000

On January 1, 1924, the date of the above balance sheets, Company X bought 400 shares of Company Y's stock on the open market at 125. On January 1, 1925, Company Y bought 300 shares of Company Z's stock on the open market at 120. Assuming that each company made a net operating profit of $6,000 during each of the years in question, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

The family tree, under the Cost Value Method, is shown by Fig. 4.

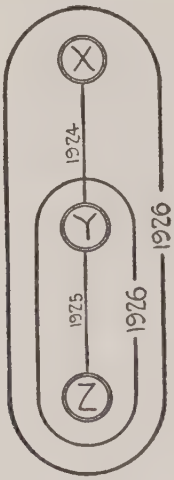

Fig. 4

	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$ 26,000	$52,000	.....	.....	$ 78,000
Z's Stock	36,000	.....	.....	$36,000	.....
Goodwill	5,000	4,000	.....	1,500	7,500
	$ 67,000	$56,000			$ 85,500
Capital Stock:					
Inside	$ 50,000	$30,000	$30,000	.....	$ 50,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	17,000	12,000	7,500	.....	21,500
Outside	.....	4,000	.....	.....	4,000
	$ 67,000	$56,000			$ 85,500

(a) $3/4 \times (\$4,000 + \$6,000) = \$7,500$

	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 62,000	$78,000	.....	.....	$140,000
Y's Stock	50,000	.....	.....	$50,000	.....
Goodwill	10,000	7,500	$ 6,000	.....	23,500
	$122,000	$85,500			$163,500

	Co. X	Co. Y + Z	Eliminations		C. B. S.
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	22,000	17,200	4,000	.....	35,200
Outside	.....	4,300	.....	.....	4,300
Co. Z's Minority (b)	.....	14,000	.....	.....	14,000
	$122,000	$85,500			$163,500

(a) $4/5 \times \$5,000 = \$4,000$
(b) \$10,000 (Capital Stock) + \$4,000 (Surplus) = \$14,000

Solution—Actual Value Method

Since Company X did not buy into a minor holding company, the family tree is the same under both methods (Fig. 4).

	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$ 26,000	$52,000	.....	.....	$ 78,000
Z's Stock (a)	40,500	.....	.....	$40,500	.....
Goodwill	5,000	4,000	.....	1,500	7,500
	$ 71,500	$56,000			$ 85,500
Capital Stock:					
Inside	$ 50,000	$30,000	$30,000	.....	$ 50,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	21,500	12,000	12,000	.....	21,500
Outside	.....	4,000	.....	.....	4,000
	$ 71,500	$56,000			$ 85,500

(a) $\$36,000 + (3/4 \times \$6,000) = \$40,500$

	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 62,000	$78,000	.....	.....	$140,000
Y's Stock (a)	63,200	.....	.....	$63,200	.....
Goodwill	10,000	7,500	$ 6,000	.....	23,500
	$135,200	$85,500			$163,500
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	35,200	17,200	17,200	.....	35,200
Outside	.....	4,300	.....	.....	4,300
Co. Z's Minority (b)	.....	14,000	.....	.....	14,000
	$135,200	$85,500			$163,500

(a) $\$50,000 + (4/5 \times \$6,000) + \{4/5 \times [\$6,000 + (3/4 \times \$6,000)]\} = \$63,200$
(b) \$10,000 (Capital Stock) + \$4,000 (Surplus) = \$14,000

Since Company X purchased the stock of Company Y before the latter became a holding company by purchasing the stock of Company Z, Company Y's individual surplus on January 1, 1924, is the figure used in analyzing Company X's investment in Company Y's stock under the Cost Value Method.

Case B

	Co. X	Co. Y	Co. Z		Co. X	Co. Y	Co. Z
Other Assets.	$100,000	$50,000	$40,000	Capital Stock.	$100,000	$50,000	$40,000
Goodwill....	10,000	5,000	4,000	Surplus.....	10,000	5,000	4,000
	$110,000	$55,000	$44,000		$110,000	$55,000	$44,000

On January 1, 1924, the date of the above balance sheets, Company Y bought 300 shares of Company Z's stock on the open market at 115. On January 1, 1925, Company X bought 400 shares of Company Y's stock on the open market at 130. Assuming that each company made a net operating profit of $10,000 during each of the years in question, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

The family tree, under the Cost Value Method, is shown by Fig. 5.

Jan. 1, 1925	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets.....	$ 25,500	$50,000	.....	.....	$ 75,500
Z's Stock.....	34,500	.....	.....	$34,500	.....
Goodwill.....	5,000	4,000	$ 1,500	.....	10,500
	$ 65,000	$54,000			$ 86,000
Capital Stock:					
Inside.....	$ 50,000	$30,000	30,000	.....	$ 50,000
Outside.....	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a).....	15,000	10,500	3,000	.....	22,500
Outside.....	.....	3,500	.....	.....	3,500
	$ 65,000	$54,000			$ 86,000

(a) $3/4 \times \$4,000 = \$3,000$

The above consolidated balance sheet of Company Y and Company Z as of January 1, 1925, was made to ascertain the

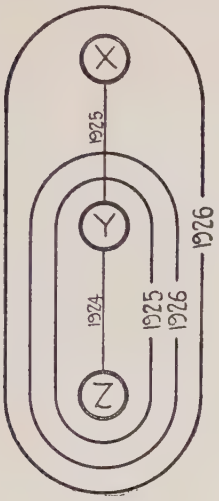

Fig. 5

consolidated surplus ($22,500) into which Company X bought, as this amount must be used in eliminating Company Y's stock on Company X's balance sheet.

Jan. 1, 1926	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$ 35,500	$60,000	.....	.....	$ 95,500
Z's Stock	34,500	.....	.....	$34,500	.....
Goodwill	5,000	4,000	$ 1,500	.....	10,500
	$ 75,000	$64,000			$106,000
Capital Stock:					
Inside	$ 50,000	$30,000	30,000	.....	$ 50,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	25,000	18,000	3,000	.....	40,000
Outside	.....	6,000	.....	.....	6,000
	$ 75,000	$64,000			$106,000

(a) $3/4 \times \$4,000 = \$3,000$

Jan. 1, 1926	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 68,000	$ 95,500	.....	.....	$163,500
Y's Stock	52,000	.....	.....	$52,000	.....
Goodwill	10,000	10,500	.....	6,000	14,500
	$130,000	$106,000			$178,000

Jan. 1, 1926	Co. X	Co. Y + Z	Eliminations		C. B. S.
Capital Stock:					
Inside	$100,000	$ 40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	30,000	32,000	18,000	.....	44,000
Outside	.....	8,000	.....	.....	8,000
Co. Z's Minority (b)	.....	16,000	.....	.....	16,000
	$130,000	$106,000			$178,000

(a) $4/5 \times \$22,500 = \$18,000$
(b) \$10,000 (Capital Stock) + \$6,000 (Surplus) = \$16,000

Solution—Actual Value Method

As the surplus at acquisition is not used for elimination purposes under the Actual Value Method, no consolidated bal-

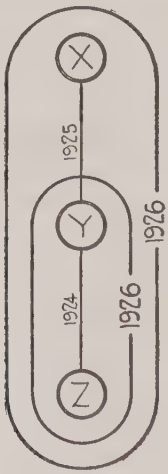

Fig. 6

ance sheet of Company Y and Company Z need be made as of January 1, 1925. The family tree is shown by Fig. 6.

Jan. 1, 1926	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$ 35,500	$ 60,000	.....	.....	$ 95,500
Z's Stock (a)	49,500	.....	.....	$49,500	.....
Goodwill	5,000	4,000	$ 1,500	.....	10,500
	$ 90,000	$ 64,000			$106,000

Jan. 1, 1926	Co. Y	Co. Z	Eliminations		C. B. S.
Capital Stock:					
Inside	$ 50,000	$ 30,000	$30,000	.....	$ 50,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	40,000	18,000	18,000	.....	40,000
Outside	.....	6,000	.....	.....	6,000
	$ 90,000	$ 64,000			$106,000

(a) $34,500 + [3/4 × ($10,000 + $10,000)] = $49,500

Jan. 1, 1926	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 68,000	$ 95,500	.....	.....	$163,500
Y's Stock (a)	66,000	.....	.....	$66,000	.....
Goodwill	10,000	10,500	.....	6,000	14,500
	$144,000	$106,000			$178,000
Capital Stock:					
Inside	$100,000	$ 40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	44,000	32,000	32,000	.....	44,000
Outside	.....	8,000	.....	.....	8,000
Co. Z's Minority (b)	.....	16,000	.....	.....	16,000
	$144,000	$106,000			$178,000

(a) $52,000 + (4/5 × $10,000) + (4/5 × 3/4 × $10,000) = $66,000
(b) $10,000 (Capital Stock) + $6,000 (Surplus) = $16,000

CASE C

	Co. X	Co. Y	Co. Z	Co. A	Co. B	Co. C
Other Assets	$95,000	$50,000	$40,000	$5,000	$4,000	$3,000
Goodwill	3,000	5,000	4,000	1,000	1,000	1,000
	$98,000	$55,000	$44,000	$6,000	$5,000	$4,000
Capital Stock	$75,000	$50,000	$40,000	$5,000	$4,000	$3,000
Surplus	23,000	5,000	4,000	1,000	1,000	1,000
	$98,000	$55,000	$44,000	$6,000	$5,000	$4,000

Make a consolidated balance sheet as of January 1, 1926, if each company made an annual operating profit of 10 per cent on its capital stock during each of the years following January 1, 1923, the date of the above balance sheets, and if the intercompany purchases of stock, all on the open market, were:

Date	Purchaser	Shares Purchased	Price
January 1, 1923	Co. Y	30 Co. B	130
January 1, 1924	Co. X	400 Co. Y	150
January 1, 1924	Co. Z	24 Co. C	180
January 1, 1925	Co. Y	40 Co. A	150
January 1, 1925	Co. X	300 Co. Z	105

Solution—Cost Value Method

Since it is impractical to keep all the facts in mind and since the dates of purchase are important, a family tree, Fig. 7, should be prepared.

A study of the family tree shows that, under the Cost Value Method, five consolidated balance sheets must be made.

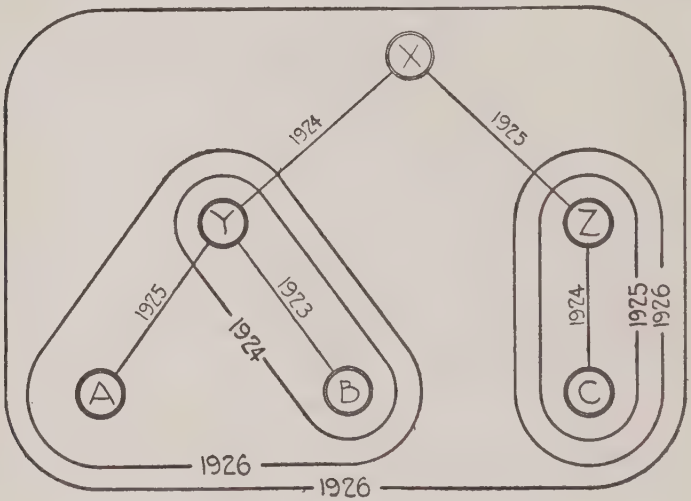

Fig. 7

First, Company Y and Company B as of January 1, 1924; second, Company Z and Company C as of January 1, 1925; third, Company Y and Company A and Company B as of January 1, 1926; fourth, Company Z and Company C as of January 1, 1926; fifth, Company X, Company Y and subsidiaries, and Company Z and subsidiaries as of January 1, 1926.

Jan. 1, 1924	Co. Y	Co. B	Eliminations		C. B. S.
Other Assets	$51,100	$4,400	.....	.....	$55,500
B's Stock	3,900	.....	.....	$3,900	.....
Goodwill	5,000	1,000	$ 150	.....	6,150
	$60,000	$5,400			$61,650

Jan. 1, 1924	Co. Y	Co. B	Eliminations		C. B. S.
Capital Stock:					
Inside	$50,000	$3,000	$3,000	.....	$50,000
Outside	.....	1,000	.....	.....	1,000
Surplus:					
Inside (a)	10,000	1,050	750	.....	10,300
Outside	.....	350	.....	.....	350
	$60,000	$5,400			$61,650

(a) $3/4 \times \$1,000 = \$750$

A consolidated balance sheet of Company Y and Company B as of January 1, 1924, is necessary under the Cost Value Method because Company X bought into Company Y's consolidated surplus ($10,300) on that date.

Jan. 1, 1925	Co. Z	Co. C	Eliminations		C. B. S.
Other Assets	$43,680	$3,600	.....	.....	$47,280
C's Stock	4,320	.....	.....	$4,320	.....
Goodwill	4,000	1,000	$ 880	.....	5,880
	$52,000	$4,600			$53,160
Capital Stock:					
Inside	$40,000	$2,400	2,400	.....	$40,000
Outside	.....	600	.....	.....	600
Surplus:					
Inside (a)	12,000	1,280	1,040	.....	12,240
Outside	.....	320	.....	.....	320
	$52,000	$4,600			$53,160

(a) $24/30 \times (\$1,000 + \$300) = \$1,040$

A consolidated balance sheet of Company Z and Company C as of January 1, 1925, is necessary under the Cost Value Method because Company X bought into Company Z's consolidated surplus ($12,240) as of that date.

Jan. 1, 1926	Co. Y	Co. A	Co. B	Eliminations		C. B. S.
Other Assets	$55,100	$6,500	$5,200	.....	.....	$66,800
A's Stock	6,000	.....	.....	.....	$6,000	.....
B's Stock	3,900	.....	.....	.....	3,900	.....
Goodwill (a)	5,000	1,000	1,000	$ 550	.....	7,550
	$70,000	$7,500	$6,200			$74,350
Capital Stock:						
Inside	$50,000	$4,000	$3,000	7,000	.....	$50,000
Outside	.....	1,000	1,000	.....	.....	2,000
Surplus:						
Inside	20,000	2,000	1,650	2,350	.....	21,300
Outside	.....	500	550	.....	.....	1,050
	$70,000	$7,500	$6,200			$74,350

(a) The elimination calculation is:

	A's Stock	B's Stock	Total
Par	$4,000	$3,000	$7,000
Surplus	1,600 (b)	750 (c)	2,350
Goodwill	400	150	550
	$6,000	$3,900	$9,900

(b) $4/5 \times (\$1,000 + \$500 + \$500) = \$1,600$
(c) $3/4 \times \$1,000 = \$750$

Both Company A and Company B can be consolidated with Company Y in the same step because both are sons of Company Y. The rule is that no more distantly related companies than father and son can be consolidated in the same step.

Jan. 1, 1926	Co. Z	Co. C	Eliminations		C. B. S.
Other Assets	$47,680	$3,900	.....	.....	$51,580
C's Stock	4,320	.....	.....	$4,320	.....
Goodwill	4,000	1,000	$ 880	.....	5,880
	$56,000	$4,900			$57,460
Capital Stock:					
Inside	$40,000	$2,400	2,400	.....	$40,000
Outside	.....	600	.....	.....	600
Surplus:					
Inside (a)	16,000	1,520	1,040	.....	16,480
Outside	.....	380	.....	.....	380
	$56,000	$4,900			$57,460

(a) $24/30 \times (\$1,000 + \$300) = \$1,040$

Jan. 1, 1926	Co. X	Co. Y +A+B	Co. Z +C	Eliminations		C. B. S.
Other Assets	$ 26,000	$66,800	$51,580	.....	.....	$144,380
Y's Stock	60,000	.....	.....	.....	$60,000	.....
Z's Stock	31,500	.....	.....	.....	31,500	.....
Goodwill (a)	3,000	7,550	5,880	$ 5,880	.....	22,310
	$120,500	$74,350	$57,460			$166,690
Capital Stock:						
Inside	$ 75,000	$40,000	$30,000	70,000	.....	$ 75,000
Outside	.....	10,000	10,000	.....	.....	20,000
Surplus:						
Inside	45,500	17,040	12,360	17,420	.....	57,480
Outside	.....	4,260	4,120	.....	.....	8,380
Minorities:						
Co. A	.....	1,500	.....	.....	.....	1,500
Co. B	.....	1,550	.....	.....	.....	1,550
Co. C	.....	.....	980	.....	.....	980
Revaluation Reserve	.....	.....	.....	.....	1,800	1,800
	$120,500	$74,350	$57,460			$166,690

(a) The elimination calculation is:

	Y's Stock	Z's Stock	Total
Par	$40,000	$30,000	$70,000
Surplus	8,240 (b)	9,180 (c)	17,420
Reserve	.....	*1,800	*1,800
Goodwill	11,760	*5,880	5,880
	$60,000	$31,500	$91,500

* Denotes negative.

(b) 4/5 × $10,300 (Co. Y's consolidated surplus on January 1, 1924) = $8,240

(c) 3/4 × $12,240 (Co. Z's consolidated surplus on January 1, 1925) = $9,180

The Revaluation Reserve must be kept separate as it represents an inflation of the assets of Company Z. On the formal consolidated balance sheet the minorities of Company Y and Company Z would be shown separately as $14,260 and $14,120, respectively.

Solution—Actual Value Method

The family tree would be the same under the Actual Value Method as under the Cost Value Method except that the use of

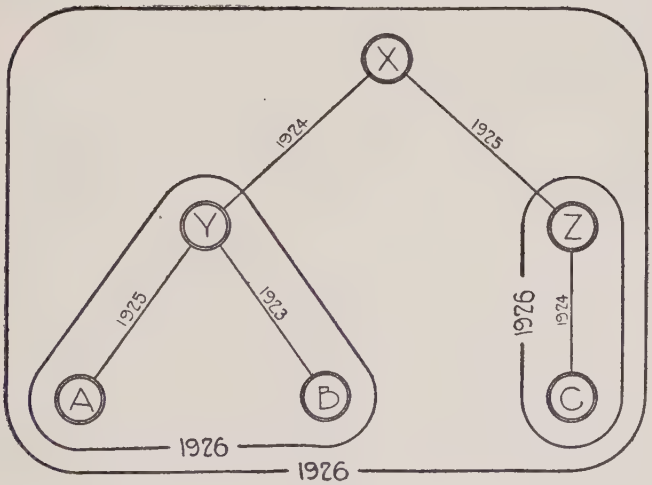

Fig. 8

present figures instead of acquisition figures in the elimination entries makes the consolidated balance sheets of Company Y

and Company B as of January 1, 1924, and of Company Z and Company C as of January 1, 1925, unnecessary. The family tree, under the Actual Value Method, is shown by Fig. 8.

Jan. 1, 1926	Co. Y	Co. A	Co. B	Eliminations		C. B. S.
Other Assets	$55,100	$6,500	$5,200	.....	.....	$66,800
A's Stock (a)	6,400	.....	.....	.....	$6,400	.....
B's Stock (a)	4,800	.....	.....	.....	4,800	.....
Goodwill	5,000	1,000	1,000	$ 550	.....	7,550
	$71,300	$7,500	$6,200			$74,350
Capital Stock:						
Inside	$50,000	$4,000	$3,000	7,000	.....	$50,000
Outside	.....	1,000	1,000	.....	.....	2,000
Surplus:						
Inside (b)	21,300	2,000	1,650	3,650	.....	21,300
Outside	.....	500	550	.....	.....	1,050
	$71,300	$7,500	$6,200			$74,350

(a) The calculation of the carrying values is:

	A's Stock	B's Stock
Purchase Price	$6,000	$3,900
Share of 1923 Profits	.....	300
Share of 1924 Profits	.....	300
Share of 1925 Profits	400	300
	$6,400	$4,800

(b) The calculation of the elimination entries is:

	A's Stock	B's Stock	Total
Par	$4,000	$3,000	$ 7,000
Surplus	2,000	1,650	3,650
Goodwill	400	150	550
	$6,400	$4,800	$11,200

Jan. 1, 1926	Co. Z	Co. C	Eliminations		C. B. S.
Other Assets	$47,680	$3,900	.....	.....	$51,580
C's Stock (a)	4,800	.....	.....	$4,800	.....
Goodwill	4,000	1,000	$ 880	.....	5,880
	$56,480	$4,900			$57,460
Capital Stock:					
Inside	$40,000	$2,400	2,400	.....	$40,000
Outside	.....	600	.....	.....	600
Surplus:					
Inside	16,480	1,520	1,520	.....	16,480
Outside	.....	380	.....	.....	380
	$56,480	$4,900			$57,460

(a) $\$4,320 + [24/30 \times (\$300 + \$300)] = \$4,800$

Jan. 1, 1926	Co. X	Co. Y +A+B	Co. Z +C	Eliminations		C. B. S.
Other Assets	$ 26,000	$66,800	$51,580	.....	.....	$144,380
Y's Stock (a)	68,800	.....	.....	.....	$68,800	.....
Z's Stock (b)	34,680	.....	.....	.....	34,680	.....
Goodwill	3,000	7,550	5,880	$ 5,880	.....	22,310
	$132,480	$74,350	$57,460			$166,690
Capital Stock:						
Inside	$ 75,000	$40,000	$30,000	70,000	.....	$ 75,000
Outside	.....	10,000	10,000	.....	.....	20,000
Surplus:						
Inside (c)	57,480	17,040	12,360	29,400	.....	57,480
Outside	.....	4,260	4,120	.....	.....	8,380
Minorities:						
Co. A	.....	1,500	.....	.....	.....	1,500
Co. B	.....	1,550	.....	.....	.....	1,550
Co. C	.....	.....	980	.....	.....	980
Revaluation Reserve	.....	.....	.....	.....	1,800	1,800
	$132,480	$74,350	$57,460			$166,690

(a) The calculation of the carrying value of Co. Y's stock is:

Purchase Price	$60,000
Share of Co. Y's Individual Profits:	
1923	nil
1924 (4/5 × $5,000)	4,000
1925 (4/5 × $5,000)	4,000
Share of Co. A's Individual Profits:	
1923	nil
1924	nil
1925 (4/5 × 4/5 × $500)	320
Share of Co. B's Individual Profits:	
1923	nil
1924 (4/5 × 3/4 × $400)	240
1925 (4/5 × 3/4 × $400)	240
	$68,800

(b) The calculation of the carrying value of Company Z's stock is:

Purchase Price	$31,500
Share of Co. Z's Individual Profits:	
1923	nil
1924	nil
1925 (3/4 × $4,000)	3,000
Share of Co. C's Individual Profits:	
1923	nil
1924	nil
1925 (3/4 × 24/30 × $300)	180
	$34,680

(c) The elimination calculation is:

	Y's Stock	Z's Stock	Total
Par	$40,000	$30,000	$ 70,000
Surplus	17,040	12,360	29,400
Reserve	.....	*1,800	*1,800
Goodwill	11,760	*5,880	5,880
	$68,800	$34,680	$103,480

* Denotes negative.

The consolidation of Company X, Company Z and Company C illustrates both reasons why no more distantly related companies than father and son can be consolidated in the same step. To have consolidated the three companies in one step instead of two would have placed Company Z's minority at $14,000 (1/4 × $56,000) instead of $14,120 and the Revaluation Reserve at $3,680 ($7,680—$4,000) instead of $1,800 ($7,680—$5,880).

CHAPTER V

DIVIDENDS

Unbooked Dividends.—The failure to book dividends, cash or stock, until payment is made therefor is an accounting mistake as an irrevocable liability exists as soon as the dividends have been legally declared and notice given. This point is vitally important as unbooked liabilities at date of acquiring the control of a subsidiary overstate the surplus at acquisition, and will, under the Cost Value Method of preparing consolidated balance sheets, understate the goodwill. Unbooked dividends at date of the consolidated balance sheet understate the liabilities and overstate the majority and minority interests. The general rule of correcting accounting mistakes before the balance sheets of the constituent companies are entered on the consolidated working papers holds for unbooked dividends.

Cash Dividends.—The declaring and paying of cash dividends from current profits do not affect the procedure of preparing consolidated balance sheets at all under the Cost Value Method, and only give rise to "credit (b)" shown in Chapter I (page 13) under the Actual Value Method. The non-payment of declared cash dividends affects the consolidated working papers as the same dividend is an asset to the holding company and a liability to the subsidiary. The elimination of the Dividends Receivable against the Dividends Payable should be similar in procedure to the elimination of the other intercompany personal accounts, a subject treated in Chapter XIX.

Dividends Out of Surplus at Acquisition.—Since nonstock dividends declared out of the subsidiary's surplus at the

date it was acquired by the holding company (frequently called liquidating dividends) are a return of investment and are not income, they must be credited to the Investment account (see "credit (a)" shown in Chapter I on page 12) under the Cost Value Method. This treatment holds also under the Actual Value Method, which credits the Investment account with all non-stock dividends regardless of the source (see "credit (b)" shown in Chapter I, on page 13). Dividends are assumed to be paid from the most recent profits. The effect of direct adjustments to Capital Surplus on liquidating dividends is shown in Case D in Chapter VI (page 101) and in Case Bd in Chapter VII (page 125).

Rule VII

Under the Cost Value Method, ascertain that non-stock dividends out of subsidiary's surplus at date it was acquired by the holding company are credited to the Investment account as required by "credit (a)" (see Chapter I, page 12).

Analyze by calculating what the elements would have been if there had been no such dividends and deducting the amounts of such dividends from the Surplus Element so obtained.

Eliminate as usual.

Rule VIII

Under the Actual Value Method, treat non-stock dividends out of the subsidiary's surplus at the date it was acquired by the holding company as ordinary non-stock dividends.

Analyze and eliminate as usual.

The logical foundation of Rule VII is very apparent. The receipt of surplus purchased at date of acquisition clearly re-

duces both the total carrying value of the investment and the Surplus element in the analysis of the carrying value.

Cases.—The chief variations in the underlying conditions regarding non-stock dividends declared out of the subsidiary's surplus at the date it was acquired by the holding company are:

A. Declared under parent and son relationship.
B. Declared under parent, son, and grandson relationship.
   (a) When grandson was acquired by son.
   (b) When parent acquired son then owning a son (grandson).

Case A

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	Capital Stock	$100,000	$50,000
Goodwill	10,000	5,000	Surplus	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets, Company X bought 400 shares of Company Y's stock at 125 on the open market. During 1925 each company made a net operating profit of $10,000 and on December 31, 1925, each company paid a cash dividend of $12,000. Make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 57,600	$48,000	.....	.....	$105,600
Y's Stock (a)	48,400	.....	.....	$48,400	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$116,000	$53,000			$126,600
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (b)	16,000	2,400	2,400	.....	16,000
Outside	.....	600	.....	.....	600
	$116,000	$53,000			$126,600

(a) For calculation of balance see Case I, Chapter I (page 18).

(b) The elimination entry is calculated thus:

	Acquisition Figures	Liquidating Dividend	Present Figures
Capital Stock	$40,000	.....	$40,000
Surplus	4,000	$1,600(c)	2,400
Goodwill	6,000	.....	6,000
Carrying Value	$50,000	$1,600	$48,400

(c) $4/5 \times (\$12,000 - \$10,000) = \$1,600$

SOLUTION—ACTUAL VALUE METHOD

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 57,600	$48,000	.....	.....	$105,600
Y's Stock (a)	48,400	.....	.....	$48,400	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$116,000	$53,000			$126,600
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	16,000	2,400	2,400	.....	16,000
Outside	.....	600	.....	.....	600
	$116,000	$53,000			$126,600

(a) For calculation see Case I, Chapter I (page 18).

It will be noted that the solutions under both methods are identical. This is due to the fact that liquidating dividends are deducted from the carrying value of the controlling investment under both the Cost Value and Actual Value Methods.

CASE BA

	Co. X	Co. Y	Co. Z		Co. X	Co. Y	Co. Z
Other Assets	$100,000	$50,000	$40,000	Capital Stock	$100,000	$50,000	$40,000
Goodwill	10,000	5,000	4,000	Surplus	10,000	5,000	4,000
	$110,000	$55,000	$44,000		$110,000	$55,000	$44,000

On January 1, 1924, the date of the above balance sheets, Company X bought 450 shares of Company Y's stock at 125 on the open market. On January 1, 1925, Company Y bought 350 shares of Company Z's stock at 115 (ex-dividend) on the open market. Since January 1, 1924, each company has made an annual operating profit of $800, and has paid on the last day of each year a cash dividend of $2,000. Make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

The family tree, under the Cost Value Method, is shown by Fig. 9:

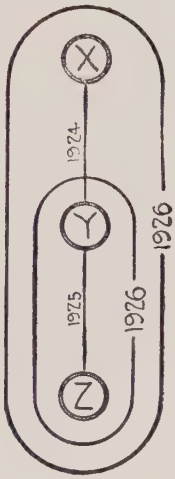

Fig. 9

	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$ 9,100	$37,600	.....	.....	$46,700
Z's Stock (a)	39,200	.....	.....	$39,200	.....
Goodwill	5,000	4,000	$ 2,800	.....	11,800
	$53,300	$41,600			$58,500
Capital Stock:					
Inside	$50,000	$35,000	35,000	.....	$50,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside	3,300	1,400	1,400	.....	3,300
Outside	.....	200	.....	.....	200
	$53,300	$41,600			$58,500

(a) The calculation of the carrying value and its analysis is:

	Acquisition Figures	Liquidating Dividend	Present Figures
Par	$35,000	.....	$35,000
Surplus	2,450	$1,050(b)	1,400
Goodwill	2,800	.....	2,800
Carrying Value	$40,250	$1,050	$39,200

(b) $35/40 \times (\$2,000 - \$800) = \$1,050$

	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 44,950	$46,700	.....	.....	$ 91,650
Y's Stock (a)	54,720	.....	.....	$54,720	.....
Goodwill	10,000	11,800	$ 6,750	.....	28,550
	$109,670	$58,500			$120,200
Capital Stock:					
Inside	$100,000	$45,000	45,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside (b)	9,670	2,970	2,970	.....	9,670
Outside	.....	330	.....	.....	330
Co. Z's Minority (c)	.....	5,200	.....	.....	5,200
	$109,670	$58,500			$120,200

(a) For calculation see Case J, Chapter I (page 18).
(b) The calculation of the elimination entry is:

	Acquisition Figures	Liquidating 1924	Dividends 1925	Present Figures
Capital Stock	$45,000	.....	....	$45,000
Surplus	4,500	*$1,080	†$450	2,970
Goodwill	6,750	.....	....	6,750
	$56,250	$1,080	$450	$54,720

* 9/10 × ($2,000 − $800) = $1,080
† 9/10 × [$2,000 − $800 − (7/8 × $800)] = $450

(c) $5,000 (Capital Stock) + $200 (Surplus) = $5,200

Solution—Actual Value Method

The family tree is the same under both the Cost Value and Actual Value Methods (Fig. 9).

	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$ 9,100	$37,600	.....	.....	$ 46,700
Z's Stock (a)	39,200	.....	.....	$39,200	.....
Goodwill	5,000	4,000	$ 2,800	.....	11,800
	$ 53,300	$41,600			$ 58,500
Capital Stock:					
Inside	$ 50,000	$35,000	35,000	.....	$ 50,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside	3,300	1,400	1,400	.....	3,300
Outside	.....	200	.....	.....	200
	$ 53,300	$41,600			$ 58,500

(a) $40,250 + (7/8 × $800) − (7/8 × $2,000) = $39,200

	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 44,950	$46,700	.....	.....	$ 91,650
Y's Stock (a)	54,720	.....	.....	$54,720	.....
Goodwill	10,000	11,800	$ 6,750	.....	28,550
	$109,670	$58,500			$120,200
Capital Stock:					
Inside	$100,000	$45,000	45,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside	9,670	2,970	2,970	.....	9,670
Outside	.....	330	.....	.....	330
Co. Z's Minority (b)	.....	5,200	.....	.....	5,200
	$109,670	$58,500			$120,200

(a) For calculation see Case J, Chapter I (page 18).
(b) $5,000 (Capital Stock) + $200 (Surplus) = $5,200

It will be noted that the solutions under both methods are identical as liquidating dividends have the same effect under both methods. In calculating the liquidating dividends received from a son, care must be taken to see that the son has taken up its profits or losses in the grandson.

Case Bb

	Co. X	Co. Y	Co. Z		Co. X	Co. Y	Co. Z
Other Assets	$100,000	$50,000	$40,000	Capital Stock	$100,000	$50,000	$40,000
Goodwill	10,000	5,000	4,000	Surplus	10,000	5,000	4,000
	$110,000	$55,000	$44,000		$110,000	$55,000	$44,000

On January 1, 1924, the date of the above balance sheets, Company Y bought 350 shares of Company Z's stock at 115 on the open market. On January 1, 1925, Company X bought 450 shares of Company Y's stock at 125 (ex-dividend) on the open market. During each of the years 1924 and 1925 each company made a net operating profit of $800. On December 31 of 1924 and 1925 each company paid a cash dividend of $2,000. Make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

The family tree, under the Cost Value Method, is shown by Fig. 10.

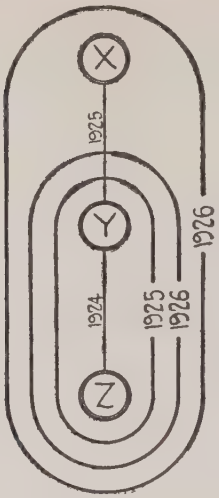

Fig. 10

Jan. 1, 1925	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$10,300	$38,800	.....	.....	$49,100
Z's Stock (a)	39,200	.....	.....	$39,200	.....
Goodwill	5,000	4,000	$ 1,750	.....	10,750
	$54,500	$42,800			$59,850
Capital Stock:					
Inside	$50,000	$35,000	35,000	.....	$50,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside	4,500	2,450	2,450	.....	4,500
Outside	.....	350	.....	.....	350
	$54,500	$42,800			$59,850

(a) The calculation of the carrying value and its analysis is:

	Acquisition Figures	Liquidating Dividends 1924	Present Figures
Capital Stock	$35,000	.....	$35,000
Surplus	3,500	$1,050	2,450
Goodwill	1,750	.....	1,750
Carrying Value	$40,250	$1,050	$39,200

Jan. 1, 1926	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$10,850	$37,600	.....	.....	$48,450
Z's Stock (a)	38,150	.....	.....	$38,150	.....
Goodwill	5,000	4,000	$ 1,750	.....	10,750
	$54,000	$41,600			$59,200

Jan. 1, 1926	Co. Y	Co. Z	Eliminations		C. B. S.
Capital Stock:					
Inside	$50,000	$35,000	$35,000	.....	$50,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside	4,000	1,400	1,400	.....	4,000
Outside	.....	200	.....	.....	200
	$54,000	$41,600			$59,200

(a) The calculation of the carrying value and its analysis is:

	Acquisition Figures	Liquidating Dividends 1924	1925	Present Figures
Par	$35,000	.....	.....	$35,000
Surplus	3,500	$1,050	$1,050	1,400
Goodwill	1,750	.....	.....	1,750
Carrying Value	$40,250	$1,050	$1,050	$38,150

Jan. 1, 1926	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 43,150	$48,450	.....	.....	$ 91,600
Y's Stock (a)	55,800	.....	.....	$55,800	.....
Goodwill	10,000	10,750	$ 7,200	.....	27,950
	$108,950	$59,200			$119,550
Capital Stock:					
Inside	$100,000	$45,000	45,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside	8,950	3,600	3,600	.....	8,950
Outside	.....	400	.....	.....	400
Co. Z's Minority (b)	.....	5,200	.....	.....	5,200
	$108,950	$59,200			$119,550

(a) The calculation of the carrying value and its analysis is:

	Acquisition Figures	Liquidating Dividends 1925	Present Figures
Capital Stock	$45,000	....	$45,000
Surplus	*4,050	†$450	3,600
Goodwill	7,200	....	7,200
Carrying Value	$56,250	$450	$55,800

* 9/10 × $4,500 (Co. Y's consolidated surplus January 1, 1925) = $4,050
† 9/10 × [$2,000 − $800 − (7/8 × $800)] = $450

(b) $5,000 (Capital Stock) + $200 (Surplus) = $5,200

Solution—Actual Value Method

The family tree, under the Actual Value Method, is shown in Fig. 11.

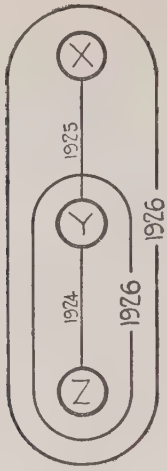

Fig. 11

Jan. 1, 1926	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$ 10,850	$37,600	.....	.....	$ 48,450
Z's Stock (a)	38,150	.....	.....	$38,150	.....
Goodwill	5,000	4,000	$ 1,750	.....	10,750
	$ 54,000	$41,600			$ 59,200
Capital Stock:					
Inside	$ 50,000	$35,000	35,000	.....	$ 50,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside	4,000	1,400	1,400	.....	4,000
Outside	.....	200	.....	.....	200
	$ 54,000	$41,600			$ 59,200

(a) $\$40,250 + [7/8 \times (\$800 + \$800)] - [7/8 \times (\$2,000 + \$2,000)] = \$38,150$

Jan. 1, 1926	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 43,150	$48,450	.....	.....	$ 91,600
Y's Stock (a)	55,800	.....	.....	$55,800	.....
Goodwill	10,000	10,750	$ 7,200	.....	27,950
	$108,950	$59,200			$119,550
Capital Stock:					
Inside	$100,000	$45,000	45,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside	8,950	3,600	3,600	.....	8,950
Outside	.....	400	.....	.....	400
Co. Z's Minority (b)	.....	5,200	.....	.....	5,200
	$108,950	$59,200			$119,550

(a) $\$56,250 + \{9/10 \times [\$800 + (7/8 \times \$800)]\} - (9/10 \times \$2,000) = \$55,800$
(b) $5,000 (Capital Stock) + $200 (Surplus) = $5,200

It will be noted that the solutions under the Cost Value and Actual Value Methods are identical, except that under the latter method it is not necessary to make a consolidated balance sheet of Company Y and Company Z as of January 1, 1925, in order to ascertain the consolidated surplus at that date.

Stock Dividends.—Since stock dividends do not constitute income, no journal entries should be made for them by the recipient, who should, however, make proper notations in the Investment account in the general ledger. The issuer should debit Surplus account and credit Capital Stock account for the face value of the stock issued.

Rule IX

Under the Cost Value Method, ascertain that no entries, other than memoranda, have been made for stock dividends received.

Analyze the carrying value of the controlling stock investment as though there had been no stock dividends and add the par value of the stock received as dividends to the resulting Capital Stock Element and deduct it from the resulting Surplus Element.

Eliminate as usual.

Rule X

Under the Actual Value Method, ascertain that no entries, other than memoranda, have been made for stock dividends received.

Analyze and eliminate the carrying value of the controlling stock investment as usual.

Since the only effect of a stock dividend is a transfer from the Surplus to the Capital Stock account of the subsidiary, Rule IX adjusts the acquisition figures for the analysis of the carry-

ing value of the intercompany stock by a transfer from the Surplus to the Capital Stock element.

The Actual Value Method makes proper adjustments automatically for stock dividends by taking the current figures.

Cases.—The chief variations in the underlying conditions regarding stock dividends are:

A. Declared from subsidiary's surplus at date control was acquired.
B. Declared from current profits.
C. Declared prior to the issue of liquidating dividends.

Case A

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	Capital Stock	$100,000	$10,000
Goodwill	10,000	5,000	Surplus	10,000	45,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets, Company X bought 75 shares of Company Y's stock on the open market at 600. During 1925 each company made a net operating profit of $10,000, and on December 31, Company Y paid a stock dividend of $40,000. Make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 65,000	$60,000	.....	.....	$125,000
Y's Stock	45,000	.....	.....	$45,000	.....
Goodwill	10,000	5,000	$ 3,750	.....	18,750
	$120,000	$65,000			$143,750
Capital Stock:					
Inside	$100,000	$37,500	37,500	.....	$100,000
Outside (a)	.....	12,500	.....	.....	12,500
Surplus:					
Inside (c)	20,000	11,250	3,750	.....	27,500
Outside (b)	.....	3,750	.....	.....	3,750
	$120,000	$65,000			$143,750

(a) $\$2,500 + (1/4 \times \$40,000) = \$12,500$
(b) $1/4 \times (\$45,000 + \$10,000 - \$40,000) = \$3,750$
(c) The calculation of the elimination entries is:

	Original Stock	Stock Dividend	Total
Capital Stock	$ 7,500	$30,000	$37,500
Surplus	33,750	*30,000	3,750
Goodwill	3,750	.....	3,750
	$45,000	nil	$45,000

* Denotes negative.

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 65,000	$60,000	.....	.....	$125,000
Y's Stock (a)	52,500	.....	.....	$52,500	.....
Goodwill	10,000	5,000	$ 3,750	.....	18,750
	$127,500	$65,000			$143,750
Capital Stock:					
Inside	$100,000	$37,500	37,500	.....	$100,000
Outside	.....	12,500	.....	.....	12,500
Surplus:					
Inside	27,500	11,250	11,250	.....	27,500
Outside	.....	3,750	.....	.....	3,750
	$127,500	$65,000			$143,750

(a) For calculation see Case K, Chapter I (page 19).

Case B

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	Capital Stock	$100,000	$50,000
Goodwill	10,000	5,000	Surplus	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets, Company X bought 400 shares of Company Y's stock on the open market at 125. During 1925 each company made a net operating profit of $30,000, and on December 31, Company Y paid a stock dividend of $25,000. Make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 80,000	$80,000	.....	.....	$160,000
Y's Stock	50,000	.....	.....	$50,000	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$140,000	$85,000			$181,000

	Co. X	Co. Y	Eliminations		C. B. S.
Capital Stock:					
Inside	$100,000	$60,000	$60,000	.....	$100,000
Outside	.....	15,000	.....	.....	15,000
Surplus:					
Inside (a)	40,000	8,000	.....	$16,000	64,000
Outside	.....	2,000	.....	.....	2,000
	$140,000	$85,000			$181,000

(a) The calculation of the eliminating entries is:

	Original Stock	Stock Dividend	Total
Capital Stock	$40,000	$20,000	$60,000
Surplus	4,000	* 20,000	* 16,000
Goodwill	6,000	.....	6,000
	$50,000	nil	$50,000

* Denotes negative.

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 80,000	$80,000	.....	.....	$160,000
Y's Stock (a)	74,000	.....	.....	$74,000	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$164,000	$85,000			$181,000
Capital Stock:					
Inside	$100,000	$60,000	60,000	.....	$100,000
Outside	.....	15,000	.....	.....	15,000
Surplus:					
Inside	64,000	8,000	8,000	.....	64,000
Outside	.....	2,000	.....	.....	2,000
	$164,000	$85,000			$181,000

(a) $\$50,000 + (4/5 \times \$30,000) = \$74,000$

Case C

	Co. X	Co. Y
Other Assets	$100,000	$60,000
Goodwill	10,000	5,000
	$110,000	$65,000

	Co. X	Co. Y
Capital Stock	$100,000	$25,000
Surplus	10,000	40,000
	$110,000	$65,000

On January 1, 1924, the date of the above balance sheets, Company X bought 200 shares of Company Y's stock at 250 on the open market. On December 31, 1924, Company Y paid a stock dividend of $25,000, and on December 31, 1925 a cash dividend of $25,000. Make a consolidated balance sheet as of

January 1, 1926, if each company made a net profit from operations of $10,000 during each year in question.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 90,000	$55,000	.....	.....	$145,000
Y's Stock (a)	46,000	.....	.....	$46,000	.....
Goodwill	10,000	5,000	.....	2,000	13,000
	$146,000	$60,000			$158,000
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside (b)	.....	10,000	.....	.....	10,000
Surplus:					
Inside	46,000	8,000	8,000	.....	46,000
Outside (c)	.....	2,000	.....	.....	2,000
	$146,000	$60,000			$158,000

(a) The calculation and analysis of the carrying value is:

	Initial Balance	Stock Dividend	12/31/24 Balance	Liquidating Dividend	12/31/25 Balance
Par	$20,000	$20,000	$40,000	.....	$40,000
Surplus	32,000	* 20,000	12,000	* $4,000	8,000
Goodwill	* 2,000	.....	* 2,000	.....	* 2,000
	$50,000		$50,000	* $4,000	$46,000

* Denotes negative.

(b) $5,000 + (1/5 × $25,000) = $10,000

(c) 1/5 × ($40,000 + $10,000 − $25,000 + $10,000 − $25,000) = $2,000

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 90,000	$55,000	.....	.....	$145,000
Y's Stock (a)	46,000	.....	.....	$46,000	.....
Goodwill	10,000	5,000	.....	2,000	13,000
	$146,000	$60,000			$158,000
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	46,000	8,000	8,000	.....	46,000
Outside	.....	2,000	.....	.....	2,000
	$146,000	$60,000			$158,000

(a) The mathematics of the carrying value is:

Purchase Price	$50,000	
Share (4/5) of 1924 Profits	8,000	
Stock Dividend—No Adjustment	.....	
Share (4/5) of 1925 Profits	8,000	$66,000
Share (4/5) of Cash Dividend	.....	20,000
Carrying Value	.....	$46,000

A comparison of Case A, Case B, and Case C shows that no attention need be paid to the source of the surplus out of which a stock dividend is paid. The reason is that a stock dividend out of surplus purchased at acquisition is not a liquidating dividend. Stock dividends liquidate nothing.

Purchased Dividends.—Since purchased dividends do not constitute income, the credit entry recording their receipt must be either to the Purchased Dividend or the Stock Investment account depending on which account was debited therefor at date of purchase. This procedure does not violate the rules for the computation of the carrying value of the stock investment given in Chapter I as those rules specified that the Investment account should be debited with the cost of the stock and not the cost of the stock plus a dividend declared prior to the date of purchase. The usual rules for analyzing and eliminating the carrying value of the stock investment apply.

Illustrative Problem.—If Company X on January 1, 1925, the date of the following balance sheets, purchased 400 shares of Company Y's stock on the open market at 125 with pro rata dividend (declared December 31, 1924, payable January 15, 1925), and, if each company made an operating profit of $10,000 and declared no dividends during 1925, make a consolidated balance sheet as of January 1, 1926.

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$53,000	Capital Stock	$100,000	$50,000
Goodwill	10,000	5,000	Surplus	10,000	5,000
			Dividends Payable	.....	3,000
	$110,000	$58,000		$110,000	$58,000

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 62,400	$60,000	.....	.....	$122,400
Y's Stock (a)	47,600	.....	.....	$47,600	.....
Goodwill	10,000	5,000	$ 3,600	.....	18,600
	$120,000	$65,000			$141,000

	Co. X	Co. Y	Eliminations		C. B. S.
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (b)	20,000	12,000	4,000	.....	28,000
Outside	.....	3,000	.....	.....	3,000
	$120,000	$65,000			$141,000

(a) $\$50,000 - \$2,400 = \$47,600$
(b) $4/5 \times \$5,000 = \$4,000$

Company X's journal entries under the Cost Value Method during 1925 were:

Purchased Dividends	$ 2,400	
Y's Stock	47,600	
Other Assets		$50,000
For purchase of stock and dividend.		
Other Assets	$ 2,400	
Purchased Dividends		$ 2,400
For collection of dividend.		
Other Assets	$10,000	
Surplus		$10,000
For recording own profits.		

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 62,400	$60,000	.....	.....	$122,400
Y's Stock (a)	55,600	.....	.....	$55,600	.....
Goodwill	10,000	5,000	$ 3,600	.....	18,600
	$128,000	$65,000			$141,000
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	28,000	12,000	12,000	.....	28,000
Outside	.....	3,000	.....	.....	3,000
	$128,000	$65,000			$141,000

(a) $\$50,000 - \$2,400 + \$8,000 = \$55,600$

Company X's journal entries under the Actual Value Method during 1925 were those given above under the Cost Value Method plus the following entry:

Y's Stock	$8,000	
Surplus		$8,000
For share in Co. Y's profits.		

Guaranteed Dividends.—A holding company wishing to interest employees in the common stock of a subsidiary may guarantee dividends thereon, or wishing to help the subsidiary float an issue of preferred stock may guarantee the preferred dividends. As dividends are not legal liabilities until declared, passed dividends are not liabilities of the subsidiary. Passed dividends due the minority, however, are liabilities of the holding company under the guaranty contract.

Payments made by the holding company under a dividend guaranty contract should be eliminated on the consolidated working papers against Surplus—Outside up to the amount of such surplus, and any unabsorbed amount should be eliminated against Surplus—Inside. If the minority owns no surplus, all of the elimination must be made against Surplus—Inside. Through its stock control, the holding company can force a declaration of a dividend if the subsidiary has a surplus; this has the same effect as making the above elimination out of Surplus—Outside. To eliminate against Surplus—Outside when there is a deficit gives the same effect as an illegal dividend. Therefore, the amount that the elimination exceeds the surplus pertaining to the minority interest's stock must be borne by the majority interest.

First Illustrative Problem.—Company X's balance sheet on January 1, 1924, was:

	Co. X		Co. X
Other Assets	$100,000	Capital Stock	$100,000
Goodwill	10,000	Surplus	10,000
	$110,000		$110,000

On January 1, 1924, Company X organized Company Y taking 300 shares at par. J. M. Hartman, the prospective manager of Company Y, subscribed for 100 shares of Company Y's stock at par because Company X guaranteed 8 per cent dividends on Company Y's stock. If each company made a net operating profit of $5,000 during 1924 and did not declare

any dividends, make a consolidated balance sheet as of January 1, 1925.

Solution—Cost Value Method

Co. X's Journal Entries

Y's Stock	$30,000	
Other Assets		$30,000
For purchase of Co. Y's Stock.		
Other Assets	$ 5,000	
Surplus		$ 5,000
For 1924 profits.		
Payments on Dividend Guaranty Contract	$ 800	
Other Assets		$ 800
For payments made to Co. Y's minority interest.		

Co. Y's Journal Entries

Other Assets	$40,000	
Capital Stock		$40,000
For receipts from sale of stock.		
Other Assets	$ 5,000	
Surplus		$ 5,000
For 1924 profits.		

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 74,200	$45,000	.....	.....	$119,200
Y's Stock	30,000	.....	.....	$30,000	.....
Payments on Dividend Guaranty Contract	800	.....	.....	800	.....
Goodwill	10,000	.....	.....	.....	10,000
	$115,000	$45,000			$129,200
Capital Stock:					
Inside	$100,000	$30,000	$30,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	15,000	3,750	.....	.....	18,750
Outside	.....	1,250	800	.....	450
	$115,000	$45,000			$129,200

Solution—Actual Value Method

The journal entries on the books of both Company X and Company Y are the same under the Actual Value Method as under the Cost Value Method except that Company X would have the following additional entry:

Y's Stock	$3,750	
Surplus		$3,750

For pro rata share of Co. Y's 1924 profits.

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 74,200	$45,000	.....	.....	$119,200
Y's Stock	33,750	.....	.....	$33,750	.....
Payments on Dividend Guaranty Contract	800	.....	.....	800	.....
Goodwill	10,000	.....	.....	.....	10,000
	$118,750	$45,000			$129,200
Capital Stock:					
Inside	$100,000	$30,000	$30,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	18,750	3,750	3,750	.....	18,750
Outside	.....	1,250	800	.....	450
	$118,750	$45,000			$129,200

The accuracy of eliminating the payments made to the minority on the dividend guaranty contract against the minority's share of surplus is shown by the fact that when the passed dividends are paid the money will all go to the holding company and the minority interests will then be only $450.

Second Illustrative Problem.—Continue the first problem by assuming that on January 1, 1925, Company Y declared and paid an 8 per cent dividend. Make a consolidated balance sheet as of January 1, 1926, if each company lost $6,000 during 1925.

Solution—Cost Value Method

Co. X's Journal Entries

Other Assets	$3,200	
Payments on Dividend Guaranty Contract		$ 800
Surplus		2,400
To record Co. Y's January 1, 1925, dividend.		
Surplus	$6,000	
Other Assets		$6,000
To record 1925 loss.		
Payments on Dividend Guaranty Contract	$ 800	
Other Assets		$ 800
To record payment because of final passed dividend of Co. Y.		

Co. Y's Journal Entries

Surplus	$3,200	
Other Assets		$3,200
For January 1, 1925, dividend.		
Surplus	$6,000	
Other Assets		$6,000
To record 1925 loss.		

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,600	$35,800	.....	.....	$106,400
Y's Stock	30,000	.....	.....	$30,000	.....
Payments on Dividend Guaranty Contract	800	.....	.....	800	.....
Goodwill	10,000	.....	.....	.....	10,000
	$111,400	$35,800			$116,400
Capital Stock:					
Inside	$100,000	$30,000	$30,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	11,400	*3,150	800	.....	7,450
Outside	.....	*1,050	.....	.....	*1,050
	$111,400	$35,800			$116,400

* Denotes deficit.

Solution—Actual Value Method

Co. X's Journal Entries

Other Assets	$3,200	
Payments on Dividend Guaranty Contract		$ 800
Y's Stock		2,400
To record Co. Y's January 1, 1925, dividend.		
Surplus	$6,000	
Other Assets		$6,000
To record 1925 loss.		
Surplus	$4,500	
Y's Stock		$4,500
To record pro rata share of Company Y's loss.		
Payments on Dividend Guaranty Contract	$ 800	
Other Assets		$ 800
To record payment because of final passed dividend of Company Y.		

Co. Y's Journal Entries

Surplus	$3,200	
Other Assets		$3,200
For January 1, 1925, dividend.		
Surplus	$6,000	
Other Assets		$6,000
To record 1925 loss.		

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,600	$35,800	.....	.....	$106,400
Y's Stock	26,850	.....	.....	$26,850	.....
Payments on Dividend Guaranty Contract	800	.....	.....	800	.....
Goodwill	10,000	.....	.....	.....	10,000
	$108,250	$35,800			$116,400
Capital Stock:					
Inside	$100,000	$30,000	$30,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	8,250	*3,150	800	3,150	7,450
Outside	.....	*1,050	.....	.....	*1,050
	$108,250	$35,800			$116,400

* Denotes deficit.

The accuracy of eliminating the payments made to the minority on the dividend guaranty contract against the majority's share of the surplus is shown by the fact that, in case of liquidation, the minority would receive $8,950 (Capital Stock $10,000 less Deficit $1,050) from Company Y if there were no liquidation losses, and Company X would lose the $800 paid on the guaranty contract.

Guaranteed Dividends on Preferred Stock.—As is shown in Chapter X, the surplus of a subsidiary having preferred and common stock must be classified thus:

Surplus Applicable to Preferred Stock:	
Inside	$.....
Outside	$.....
Common Stock:	
Inside	$.....
Outside	$.....

Payments made by the holding company under a contract guaranteeing the dividends of the preferred stock should be eliminated against Surplus Applicable to Preferred Stock—Outside up to the amount of such surplus, and any unabsorbed amount should be eliminated against Surplus Applicable to Preferred Stock—Inside and Surplus Applicable to Common Stock—Inside in the order named.

CHAPTER VI

SUBSIDIARY'S STOCK SOLD TO MINORITY

Sold by Subsidiary

The sale of stock, treasury or unissued, by the subsidiary to the minority interests may be divided into two classes: (a) Sales when the holding company does not increase its holdings at the same time as the minority interests, and (b) sales when the holding company also increases its holdings. The former case will be studied immediately and the latter will be investigated in Case B in Chapter VII (page 126).

Rule XI

Under the Cost Value Method, analyze and eliminate the carrying value of the holding company's controlling investment in the subsidiary without making any adjustments therein for sales of stock by the subsidiary directly to the minority interest subsequent to the holding company's acquisition of its control.

Rule XII

Under the Actual Value Method, ascertain that the sales of stock made by a subsidiary directly to the minority interests subsequent to the holding company's acquisition of its control are properly reflected by either a "Credit (c)" or a "Debit (c)" (see Chapter I) to the holding company's Investment account.

Analyze and eliminate as usual.

The effect of Rule XII is to reflect in the holding company's Investment account, the change in the book value of its holdings occasioned by the outside sale by the subsidiary of stock at other than book value. If the new stock is sold to the minority at the book value of the old it makes no change in the carrying value of the investment under the Actual Value Method. A sale at less than the old book value, however, decreases the carrying value and at more than the old book value increases the carrying value.

Cases.—The chief variations regarding sales of stock made by a subsidiary directly to the minority interests subsequent to the holding company's acquisition of its control are:

A. Sold at book value of outstanding stock.
B. Sold at less than book value of outstanding stock.
C. Sold at more than book value of outstanding stock.
D. Sold prior to a liquidating dividend.
E. Sale made by grandson at other than book value of outstanding stock.

Case A

	Co. X	Co. Y		Co. X	Co. Y
Other Assets.....	$100,000	$40,000	Capital Stock.....	$100,000	$40,000
Goodwill.....	10,000	5,000	Surplus.....	10,000	5,000
	$110,000	$45,000		$110,000	$45,000

On January 1, 1924, the date of the above balance sheets, Company X bought 300 shares of Company Y's stock at 120 on the open market. On January 1, 1925, Company Y issued 100 new shares to A. Lang at 125. Assuming each company made a net operating profit of $5,000 during each of the years in question, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 74,000	$62,500	.....	.....	$136,500
Y's Stock	36,000	.....	.....	$36,000	.....
Goodwill	10,000	5,000	$ 2,250	.....	17,250
	$120,000	$67,500			$153,750
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside (a)	20,000	10,500	3,750	.....	26,750
Outside (b)	.....	7,000	.....	.....	7,000
	$120,000	$67,500			$153,750

(a) $3/4 \times \$5,000 = \$3,750$
(b) $2/5 \times (\$5,000 + \$2,500 + \$5,000 + \$5,000) = \$7,000$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 74,000	$62,500	.....	.....	$136,500
Y's Stock (a)	42,750	.....	.....	$42,750	.....
Goodwill	10,000	5,000	$ 2,250	.....	17,250
	$126,750	$67,500			$153,750
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside	26,750	10,500	10,500	.....	26,750
Outside	.....	7,000	.....	.....	7,000
	$126,750	$67,500			$153,750

(a) The mathematics for the carrying value is:

January 1, 1924, Purchase Price		$36,000
Share (3/4) of 1924 Profits		3,750
Surplus Owned after Sale (3/5 × $12,500)	$7,500	
Surplus Owned before Sale (3/4 × $10,000)	7,500	(no change)
Share (3/5) of 1925 Profits		3,000
Carrying Value		$42,750

Since the new stock was sold for the book value of the old stock, the sale had no effect upon the carrying value of the investment under the Actual Value Method.

Case B

Same as Case A if A. Lang had paid $120 per share instead of $125.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 74,000	$62,000	.....	.....	$136,000
Y's Stock	36,000	.....	.....	$36,000	.....
Goodwill	10,000	5,000	$ 2,250	.....	17,250
	$120,000	$67,000			$153,250
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside (a)	20,000	10,200	3,750	.....	26,450
Outside (b)	.....	6,800	.....	.....	6,800
	$120,000	$67,000			$153,250

(a) $3/4 \times \$5,000 = \$3,750$
(b) $2/5 \times (\$5,000 + \$2,000 + \$5,000 + \$5,000) = \$6,800$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 74,000	$62,000	.....	.....	$136,000
Y's Stock (a)	42,450	.....	.....	$42,450	.....
Goodwill	10,000	5,000	$ 2,250	.....	17,250
	$126,450	$67,000			$153,250
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside	26,450	10,200	10,200	.....	26,450
Outside	.....	6,800	.....	.....	6,800
	$126,450	$67,000			$153,250

(a) For calculation see Case L, Chapter I (page 19).

Since the new stock was sold for less than the book value of the old stock, the sale decreased the carrying value of the investment under the Actual Value Method.

Case C

Same as Case A if A. Lang had paid $135 per share instead of $125.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 74,000	$63,500	.....	.....	$137,500
Y's Stock	36,000	.....	.....	$36,000	.....
Goodwill	10,000	5,000	$ 2,250	.....	17,250
	$120,000	$68,500			$154,750

	Co. X	Co. Y	Eliminations		C. B. S.
Capital Stock:					
Inside	$100,000	$30,000	$30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside (a)	20,000	11,100	3,750	.....	27,350
Outside (b)	.....	7,400	.....	.....	7,400
	$120,000	$68,500			$154,750

(a) $3/4 \times \$5,000 = \$3,750$
(b) $2/5 \times (\$5,000 + \$3,500 + \$5,000 + \$5,000) = \$7,400$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 74,000	$63,500	.....	.....	$137,500
Y's Stock (a)	43,350	.....	.....	$43,350	.....
Goodwill	10,000	5,000	$ 2,250	.....	17,250
	$127,350	$68,500			$154,750
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside	27,350	11,100	11,100	.....	27,350
Outside	.....	7,400	.....	.....	7,400
	$127,350	$68,500			$154,750

(a) For calculation see Case M, Chapter I (page 20).

Since the new stock was sold for more than the book value of the old stock, the sale increased the carrying value of the investment under the Actual Value Method.

Attention is invited to the fact that the consolidated goodwill was $17,250, in Cases A, B, and C. A sale of new stock to the minority after the date of acquisition of control can not change the goodwill purchased at date of acquisition with the controlling shares of stock.

Case D

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$40,000	Capital Stock	$100,000	$40,000
Goodwill	10,000	6,000	Surplus	10,000	6,000
	$110,000	$46,000		$110,000	$46,000

On January 1, 1924, the date of the above balance sheets, Company X purchased 300 shares of Company Y's stock at 150

on the open market. On January 1, 1925, Company Y sold 100 shares of its own unissued stock at 160 to E. L. Bogart. Each company made a net operating profit of $10,000 during each of the years in question. On December 31, 1925, Company Y paid a cash dividend of $30,000. Make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 93,000	$46,000	.....	.....	$139,000
Y's Stock (a)	42,600	.....	.....	$42,600	.....
Goodwill	10,000	6,000	$10,500	.....	26,500
	$145,600	$52,000			$165,500
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside	45,600	1,200	2,100	.....	44,700
Outside	.....	800	.....	.....	800
	$145,600	$52,000			$165,500

(a) The mathematics for the carrying value and eliminating entries is:

	Original Elements	Deductions for Dividend	Final Elements
Capital Stock	$30,000	.....	$30,000
Surplus	4,500 (b)	$2,400 (c)	2,100
Goodwill	10,500	.....	10,500
	$45,000	$2,400	$42,600

(b) $3/4 \times \$6,000 = \$4,500$
(c) $3/5 \times [\$30,000 - (\$10,000 + \$10,000 + \$6,000)] = \$2,400$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 93,000	$46,000	.....	.....	$139,000
Y's Stock (a)	41,700	.....	.....	$41,700	.....
Goodwill	10,000	6,000	$10,500	.....	26,500
	$144,700	$52,000			$165,500
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside	44,700	1,200	1,200	.....	44,700
Outside	.....	800	.....	.....	800
	$144,700	$52,000			$165,500

(a) The mathematics for the carrying value is:

January 1, 1924, Purchase Price	$45,000	
Share (3/4) of 1924 Profits	7,500	
Surplus Owned after Sale (3/5 × $22,000) $13,200		
Surplus Owned before Sale (3/4 × $16,000) 12,000	1,200	
Share (3/5) of 1925 Profits	6,000	$59,700
Share (3/5) of Dividend		18,000
Carrying Value		$41,700

Since the Capital Surplus in Case D was not contributed by the holding company, the distribution of the premium did not constitute a liquidating dividend. Thus the liquidating dividend was [$30,000—($10,000 + $10,000 + $6,000)] or $4,000.

Case E

	Co. X	Co. Y	Co. Z		Co. X	Co. Y	Co. Z
Other Assets	$100,000	$50,000	$40,000	Capital Stock	$100,000	$50,000	$40,000
Goodwill	10,000	5,000	4,000	Surplus	10,000	5,000	4,000
	$110,000	$55,000	$44,000		$110,000	$55,000	$44,000

On January 1, 1924, the date of the above balance sheets, Company X bought 400 shares of Company Y's stock at 125 and Company Y bought 300 shares of Company Z's stock at 140, both on the open market. On January 1, 1925, Company Z sold 100 shares of its own unissued stock to L. A. Pratt at 150. During 1924 and 1925 each company made an annual operating profit of 10 per cent on its outstanding stock. Make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

The family tree, under the Cost Value Method, is shown by Fig. 12.

	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$ 18,000	$ 64,000	.....	.....	$ 82,000
Z's Stock	42,000	.....	.....	$42,000	.....
Goodwill	5,000	4,000	$ 9,000	.....	18,000
	$ 65,000	$ 68,000			$100,000

	Co. Y	Co. Z	Eliminations		C. B. S.
Capital Stock:					
Inside	$ 50,000	$ 30,000	$30,000	.....	$ 50,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside (a)	15,000	10,800	3,000	.....	22,800
Outside	.....	7,200	.....	.....	7,200
	$ 65,000	$ 68,000			$100,000

(a) $3/4 \times \$4{,}000 = \$3{,}000$

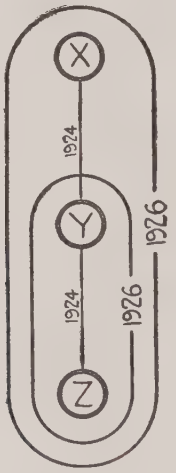

Fig. 12

	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 70,000	$ 82,000	.....	.....	$152,000
Y's Stock	50,000	.....	.....	$50,000	.....
Goodwill	10,000	18,000	$ 6,000	.....	34,000
	$130,000	$100,000			$186,000
Capital Stock:					
Inside	$100,000	$ 40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	30,000	18,240	4,000	.....	44,240
Outside	.....	4,560	.....	.....	4,560
Z's Minority	.....	27,200	.....	.....	27,200
	$130,000	$100,000			$186,000

(a) $4/5 \times \$5{,}000 = \$4{,}000$

Solution—Actual Value Method

The family tree is the same under both the Actual Value and Cost Value Methods (Fig. 12).

	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$18,000	$64,000	.....	.....	$ 82,000
Z's Stock (a)	49,800	.....	.....	$49,800	.....
Goodwill	5,000	4,000	$ 9,000	.....	18,000
	$72,800	$68,000			$100,000
Capital Stock:					
Inside	$50,000	$30,000	30,000	.....	$ 50,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside	22,800	10,800	10,800	.....	22,800
Outside	.....	7,200	.....	.....	7,200
	$72,800	$68,000			$100,000

(a) The calculation of the carrying value is:

Purchase Price		$42,000
Share (3/4) in Co. Z's 1924 Profits		3,000
Ownership in Co. Z's Surplus:		
After Sale (3/5 × $13,000)	$7,800	
Before Sale (3/4 × $8,000)	6,000	1,800
Share (3/5) in Co. Z's 1925 Profits		3,000
Carrying Value		$49,800

	Co. X	Co. Y + Z	Eliminations		C. B. S
Other Assets	$ 70,000	$ 82,000	.....	.....	$152,000
Y's Stock (a)	64,240	.....	.....	$64,240	.....
Goodwill	10,000	18,000	$ 6,000	.....	34,000
	$144,240	$100,000			$186,000
Capital Stock:					
Inside	$100,000	$ 40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	44,240	18,240	18,240	.....	44,240
Outside	.....	4,560	.....	.....	4,560
Z's Minority	.....	27,200	.....	.....	27,200
	$144,240	$100,000			$186,000

(a) The calculation of the carrying value is:

Purchase Price	$50,000
Share of Co. Y's Individual Profits:	
1924 (4/5 × $5,000)	4,000
1925 (4/5 × $5,000)	4,000
Share of Co. Y's Profit on Sale of Co. Z's Stock:	
4/5 × $1,800 (see footnote (a) in Working Sheet for Co. Y and Co. Z)	1,440
Share of Co. Z's Individual Profits:	
1924 (4/5 × 3/4 × $4,000)	2,400
1925 (4/5 × 3/5 × $5,000)	2,400
Carrying Value	$64,240

The chief point of interest in Case E is the fact that, under the Actual Value Method, the grandparent as well as the parent must make adjustments when the grandson sells its stock to the minority at other than the book value of the old stock.

Sold by Holding Company

The sale of a part of its controlling investment in a subsidiary by the holding company vitally affects both the carrying value of the investment on the books of the holding company and the elimination entries on the consolidated working papers. The journal entry under both the Actual Value and Cost Value Methods for such a sale (assuming a profit) would be:

Cash	$.....	
Y's Stock (Pro rata share of carrying value)		$.....
Profit and Loss		$.....

The use of the pro rata value of the stock sold is necessitated by the fact that shares carrying control frequently sell for unusual amounts. This difference enhances the value of the stock previously purchased and does not constitute a just cost of the specific shares purchased.

Rule XIII

Under the Cost Value Method, ascertain that sales of a part of its controlling investment in a subsidiary by the holding company have been properly reflected in the Investment account.

Analyze the carrying value of the investment just prior to such sales making proper adjustments for any stock dividends (see Rule IX) or for any dividends out of subsidiary's surplus at date of acquisition (see Rule VII), multiply the amounts for each element thus obtained by a fraction whose numerator is the number of shares held after such sales and whose denominator is the number of shares held just prior to such sales.

Eliminate as usual.

Rule XIV

Under the Actual Value Method, ascertain that sales of a part of a controlling investment in a subsidiary by the holding company have been properly reflected in the Investment account.

Analyze and eliminate as usual.

Cases.—The chief variations regarding sales of a part of its controlling investment in a subsidiary by the holding company are:

A. When no stock dividends or dividends out of surplus at date of acquisition have been declared prior to such sales.

B. When stock dividends have been declared prior to such sales.

C. When dividends out of surplus at date of acquisition have been declared prior to such sales.

Of course, each of the above classes could be subdivided for sales, (a) at book value, (b) at less than book value, and (c) at more than book value. These subclasses, however, merely affect the Cash and Surplus accounts of the holding company, and do not affect the Investment account or the technique necessary to make a consolidated balance sheet.

CASE A

	Co. X	Co. Y		Co. X	Co. Y
Other Assets.....	$100,000	$50,000	Capital Stock.....	$100,000	$50,000
Goodwill.....	10,000	5,000	Surplus.....	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets, Company X bought 450 shares of Company Y's stock at 120 on the open market. During 1925 each company made an operating profit of $10,000, and on December 31, Company X sold 50 shares of Company Y's stock at 132 to W. O. Weyforth. Make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 62,600	$60,000	.....	.....	$122,600
Y's Stock (a)	48,000	.....	.....	$48,000	.....
Goodwill	10,000	5,000	$ 4,000	.....	19,000
	$120,600	$65,000			$141,600
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (b)	20,600	12,000	4,000	.....	28,600
Outside	.....	3,000	.....	.....	3,000
	$120,600	$65,000			$141,600

(a) For calculation see Case N, Chapter I (page 20).
(b) The calculation of the eliminating entries is:

	Before Sale		After Sale
Capital Stock	$45,000 × 400/450	=	$40,000
Surplus	4,500 × 400/450	=	4,000
Goodwill	4,500 × 400/450	=	4,000
	$54,000		$48,000

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 62,600	$60,000	.....	.....	$122,600
Y's Stock (a)	56,000	.....	.....	$56,000	.....
Goodwill	10,000	5,000	$ 4,000	.....	19,000
	$128,600	$65,000			$141,600
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	28,600	12,000	12,000	.....	28,600
Outside	.....	3,000	.....	.....	3,000
	$128,600	$65,000			$141,600

(a) For calculation see Case N, Chapter I (page 20).

The logical foundation of Rules XIII and XIV may be seen from the fact that Company X paid $120 a share for stock having a book value of $110. The goodwill, therefore, was $10 a share and the total goodwill on the final investment of 400 shares was $4,000.

Case B

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	Capital Stock	$100,000	$50,000
Goodwill	10,000	5,000	Surplus	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets, Company X bought 400 shares of Company Y's stock at 125 on the open market. During 1925, each company made an operating profit of $30,000. On December 31, 1925, Company Y paid a stock dividend of $25,000, and Company X sold (ex-dividend) 150 shares of Company Y's stock at 124 to J. H. Hollander. Make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 98,600	$80,000	.....	.....	$178,600
Y's Stock (a)	37,500	.....	.....	$37,500	.....
Goodwill	10,000	5,000	$ 4,500	.....	19,500
	$146,100	$85,000			$198,100
Capital Stock:					
Inside	$100,000	$45,000	45,000	.....	$100,000
Outside	.....	30,000	.....	.....	30,000
Surplus:					
Inside (b)	46,100	6,000	.....	12,000	64,100
Outside	.....	4,000	.....	.....	4,000
	$146,100	$85,000			$198,100

(a) For calculation see Case O, Chapter I (page 21).
(b) The calculation of the eliminating entries is:

	Original Elements	Stock Dividends	Before Sale	After Sale
Capital Stock	$40,000	$20,000	$60,000 × 450/600 =	$45,000
Surplus	4,000	*20,000	*16,000 × 450/600 =	*12,000
Goodwill	6,000	.....	6,000 × 450/600 =	4,500
	$50,000	Nil	$50,000	$37,500

* Denotes negative.

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 98,600	$80,000	.....	.....	$178,600
Y's Stock (a)	55,500	.....	.....	$55,500	.....
Goodwill	10,000	5,000	$ 4,500	.....	19,500
	$164,100	$85,000			$198,100

	Co. X	Co. Y	Eliminations		C. B. S.
Capital Stock:					
Inside	$100,000	$45,000	$45,000	.....	$100,000
Outside	.....	30,000	.....	.....	30,000
Surplus:					
Inside	64,100	6,000	6,000	.....	64,100
Outside	.....	4,000	.....	.....	4,000
	$164,100	$85,000			$198,100

(a) For calculation see Case O, Chapter I (page 21).

The accuracy of the $4,500 goodwill element in the elimination entry may be proven thus:

Purchase Price per Share:	
$50,000 ÷ ($400 + $200) =	$83.33
Book Value per Share:	
$55,000 ÷ ($500 + $250) =	73.33
Goodwill per Share	$10.00
Number of Shares Held	450
Total Goodwill	$4,500

Case C

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	Capital Stock	$100,000	$50,000
Goodwill	10,000	5,000	Surplus	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets, Company X bought 450 shares of Company Y's stock at 120 on the open market. During 1925 each company made an operating profit of $10,000. On December 31, 1925, Company Y paid a cash dividend of $12,000 and Company X sold (ex-dividend) 50 shares of Company Y's stock at 120 to G. E. Barnett. Make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 72,800	$48,000	.....	.....	$120,800
Y's Stock (a)	46,400	.....	.....	$46,400	.....
Goodwill	10,000	5,000	$ 4,000	.....	19,000
	$129,200	$53,000			$139,800

	Co. X	Co. Y	Eliminations		C. B. S.
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	29,200	2,400	2,400	.....	29,200
Outside	.....	600	.....	.....	600
	$129,200	$53,000			$139,800

(a) The calculation of the carrying value and eliminating entries is:

	Original Elements	Deductions for Dividend	Before Sale	After Sale
Capital Stock	$45,000	.....	$45,000 × 400/450 =	$40,000
Surplus	4,500	$1,800	2,700 × 400/450 =	2,400
Goodwill	4,500	.....	4,500 × 400/450 =	4,000
	$54,000	$1,800	$52,200	$46,400

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 72,800	$48,000	.....	.....	$120,800
Y's Stock (a)	46,400	.....	.....	$46,400	.....
Goodwill	10,000	5,000	$ 4,000	.....	19,000
	$129,200	$53,000			$139,800
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	29,200	2,400	2,400	.....	29,200
Outside	.....	600	.....	.....	600
	$129,200	$53,000			$139,800

(a) The calculation of the carrying value is:

Purchase Price	$54,000		
1925 Gain (45/50 × $10,000)	9,000	$63,000	
1925 Dividend (45/50 × $12,000)		10,800	$52,200
Cost of Shares Sold (50/450 × $52,200)			5,800
Carrying Value			$46,400

The accuracy of the $4,000 goodwill element in the elimination entry may be proven thus:

Purchase Price per Share:	
($50,000 − $1,800) ÷ 450 =	$ 116
Book Value per Share:	
($55,000 − $2,000) ÷ 500 =	106
Goodwill per Share	$ 10
Number of Shares Held	400
Total Goodwill	$4,000

CHAPTER VII

STOCK ACQUIRED AT SEVERAL DATES

Special technique is necessary in order to make consolidated balance sheets when the controlling investments were purchased by the holding company in blocks at several dates, as the subsidiary's surplus will usually change between the dates of acquiring the different blocks of stock.

Rule XV

Under the Cost Value Method, segregate the carrying value of the controlling investment in a subsidiary acquired in blocks at several dates into amounts applicable to each block of stock.

Take the subsidiary's surplus or deficit balances existing on the dates of the purchases as governing the blocks bought on the respective dates.

Analyze, obtaining the surplus or deficit purchased with the blocks of stock purchased on the open market by the usual pro rata method, but obtaining the surplus or deficit purchased with the blocks of stock bought directly from the subsidiary by subtracting the owned surplus or deficit just before the purchases from the owned surplus or deficit just after the purchases.

Eliminate as usual.

Rule XVI

Under the Actual Value Method, analyze and eliminate the carrying value of a controlling investment in a

subsidiary purchased in blocks at several dates just as though all the stock had been purchased at one time.

Accuracy of Rules.—The accuracy of the above rules can be judged from the following case: Calculate the consolidated surplus as of January 1, 1926, if Company X bought on the open market 200 shares of Company Y's stock at 135 on January 1, 1924, and 300 shares at 150 on January 1, 1925.

	Co. X	Co. Y
Capital Stock	$100,000	$50,000
Surplus, January 1, 1924	10,000	5,000
Operating Profit, 1924	12,000	8,000
Operating Profit, 1925	15,000	12,500

The elimination entry under the Cost Value Method then is:

	200 Shares	300 Shares	Total
Capital Stock	$20,000	$30,000	$50,000
Surplus	2,000 (a)	7,800 (b)	9,800
Goodwill	5,000	7,200	12,200
Carrying Value	$27,000	$45,000	$72,000

(a) $2/5 \times \$5,000 = \$2,000$
(b) $3/5 \times (\$5,000 + \$8,000) = \$7,800$

The consolidated surplus as of January 1, 1926, then is:

	According to Consolidated Balance Sheet
Company X's Individual Surplus	$37,000
Company Y's Individual Surplus	25,500
	$62,500
Elimination (see above)	9,800
Balance	$52,700

	According to Ordinary Arithmetic
Company X's Surplus, January 1, 1924	$10,000
Company X's Profits, 1924 (all)	12,000
Company Y's Profits, 1924 (2/5)	3,200
Company X's Profits, 1925 (all)	15,000
Company Y's Profits, 1925 (all)	12,500
	$52,700

The reason for the distinction in Rule XV between open

market and direct purchases is due to the fact that the usual pro rata method of calculating the purchased surplus will not work for direct purchases. Direct purchases, if made at other than book value of the old stock, change the net worth back of the blocks of stocks previously purchased. The accuracy of Rule XV in cases of direct purchases may be proven thus: Calculate the consolidated surplus as of January 1, 1926, if Company X bought directly from Company Y 30 shares at 130 on January 1, 1924, and 120 shares at 105 on January 1, 1925.

	Co. X	Co. Y
Capital Stock, January 1, 1924	$100,000	$5,000
Surplus, January 1, 1924	10,000	700
Operating Profit, 1924	15,000	800
Operating Profit, 1925	20,000	2,000

The elimination entry under the Cost Value Method then is:

	30 Shares	120 Shares	Total
Capital Stock	$3,000	$12,000	$15,000
Surplus (a)	600	1,350	1,950
Goodwill	300	*750	*450
Carrying Value	$3,900	$12,600	$16,500

* Denotes negative.

(a) The calculation of the surplus purchased is:

	30 Shares	120 Shares
Surplus Owned:		
After Purchase	$600 (b)	$2,250 (d)
Before Purchase	nil	900 (c)
Difference	$600	$1,350

(b) $3/8 \times (\$900 + \$700) = \$600$
(c) $3/8 \times (\$900 + \$700 + \$800) = \$900$
(d) $3/4 \times (\$900 + \$700 + \$800 + \$600) = \$2,250$

The consolidated surplus as of January 1, 1926, then is:

	According to Consolidated Balance Sheet
Company X's Individual Surplus	$45,000
Company Y's Individual Surplus (Company X's Share)	3,750 (a)
	$48,750
Elimination (see above)	1,950
Balance	$46,800

(a) $15/20 \times (\$700 + \$800 + \$2,000 + \$900 + \$600) = \$3,750$

	According to Ordinary Arithmetic
Company X's Surplus, January 1, 1924	$10,000
Company X's Profits, 1924 (all)	15,000
Company Y's Profits, 1924 (3/8)	300
Company X's Profits, 1925 (all)	20,000
Company Y's Profits, 1925 (3/4)	1,500
	$46,800

Cases.—The chief variations in the underlying conditions regarding controlling investments in subsidiaries purchased in blocks at several dates are:

A. Purchases on the open market:
   (a) When profit occurs between purchase dates.
   (b) When losses occur between purchase dates.
   (c) When dividends are paid between purchase dates from current profits.
   (d) When dividends are paid between purchase dates from subsidiary's surplus at acquisition.

B. Purchases directly from subsidiary:
   (a) When profit occurs between purchase dates.
   (b) When losses occur between purchase dates.
   (c) When dividends are paid between purchase dates from current profits.
   (d) When dividends are paid between purchase dates from subsidiary's surplus at acquisition.
   (e) When both the minority and majority interests buy additional stock.

Case Aa

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$40,000	Capital Stock	$100,000	$50,000
Goodwill	10,000	15,000	Surplus	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

Company X made the following purchases (ex-dividend) of Company Y's stock on the open market: January 1, 1923, the date of the above balance sheets, 200 shares at 105; Janu-

ary 1, 1924, 100 shares at 110; January 1, 1925, 100 shares at 115. Each company made a net operating profit of $10,000 during each of the years in question. Make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 86,500	$70,000	.....	.....	$156,500
Y's Stock	43,500	.....	.....	$43,500	.....
Goodwill	10,000	15,000	.....	6,500	18,500
	$140,000	$85,000			$175,000
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	40,000	28,000	10,000	.....	58,000
Outside	.....	7,000	.....	.....	7,000
	$140,000	$85,000			$175,000

(a) The mathematics for the elimination entries is:

	200 Shares	100 Shares	100 Shares	Total
Par	$20,000	$10,000	$10,000	$40,000
Surplus	2,000 (b)	3,000 (c)	5,000 (d)	10,000
Goodwill	*1,000	*2,000	*3,500	*6,500
	$21,000	$11,000	$11,500	$43,500

* Denotes negative.

(b) $2/5 \times \$5,000 = \$2,000$
(c) $1/5 \times (\$5,000 + \$10,000) = \$3,000$
(d) $1/5 \times (\$5,000 + \$10,000 + \$10,000) = \$5,000$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 86,500	$70,000	.....	.....	$156,500
Y's Stock (a)	61,500	.....	.....	$61,500	.....
Goodwill	10,000	15,000	.....	6,500	18,500
	$158,000	$85,000			$175,000
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	58,000	28,000	28,000	.....	58,000
Outside	.....	7,000	.....	.....	7,000
	$158,000	$85,000			$175,000

(a) For calculation see Case P, Chapter I (page 21).

Case Ab

	Co. X	Co. Y		Co. X	Co. Y
Other Assets.....	$100,000	$50,000	Capital Stock.....	$100,000	$50,000
Goodwill.....	10,000	6,000	Surplus.....	10,000	6,000
	$110,000	$56,000		$110,000	$56,000

Company X made the following purchases of Company Y's stock on the open market: January 1, 1923, the date of the above balance sheets, 150 shares at 109; January 1, 1924, 200 shares at 108; January 1, 1925, 125 shares at 106. Each company had an operating loss of $5,000 during each of the years in question. Make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets.....	$ 33,800	$35,000	.....	.....	$ 68,800
Y's Stock.....	51,200	.....	.....	$51,200	.....
Goodwill.....	10,000	6,000	$ 2,500	.....	18,500
	$ 95,000	$41,000			$ 87,300
Capital Stock:					
Inside.....	$100,000	$47,500	47,500	.....	$100,000
Outside.....	.....	2,500	.....	.....	2,500
Surplus:					
Inside (a).....	*5,000	*8,550	1,200	.....	*14,750
Outside.....	.....	*450	.....	.....	*450
	$ 95,000	$41,000			$ 87,300

* Denotes deficit.

(a) The mathematics for the elimination entries is:

	150 Shares	200 Shares	100 Shares	Total
Par.....	$15,000	$20,000	$12,500	$47,500
Surplus.....	1,800 (b)	400 (c)	*1,000 (d)	1,200
Goodwill.....	*450	1,200	1,750	2,500
	$16,350	$21,600	$13,250	$51,200

* Denotes negative.

(b) $15/50 \times \$6,000 = \$1,800$
(c) $20/50 \times (\$6,000 - \$5,000) = \$400$
(d) $125/500 \times (\$5,000 + \$5,000 - \$6,000) = \$1,000$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 33,800	$35,000	.....	.....	$ 68,800
Y's Stock (a)	41,450	.....	.....	$41,450	.....
Goodwill	10,000	6,000	$ 2,500	.....	18,500
	$ 85,250	$41,000			$ 87,300
Capital Stock:					
Inside	$100,000	$47,500	47,500	.....	$100,000
Outside	.....	2,500	.....	.....	2,500
Surplus:					
Inside	*14,750	*8,550	.....	8,550	*14,750
Outside	.....	*450	.....	.....	*450
	$ 85,250	$41,000			$ 87,300

* Denotes deficit.

(a) For calculation see Case Q, Chapter I (page 22).

Case Ac

Same as Case Aa if each company had paid an $8,000 cash dividend on December 31st of each of the years in question.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 76,900	$46,000	.....	.....	$122,900
Y's Stock	43,500	.....	.....	$43,500	.....
Goodwill	10,000	15,000	.....	1,700	23,300
	$130,400	$61,000			$146,200
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	30,400	8,800	5,200	.....	34,000
Outside	.....	2,200	.....	.....	2,200
	$130,400	$61,000			$146,200

(a) The mathematics for the elimination entries is:

	200 Shares	100 Shares	100 Shares	Total
Par	$20,000	$10,000	$10,000	$40,000
Surplus	2,000 (b)	1,400 (c)	1,800 (d)	5,200
Goodwill	*1,000	*400	*300	*1,700
	$21,000	$11,000	$11,500	$43,500

* Denotes negative.

(b) $2/5 \times \$5,000 = \$2,000$
(c) $1/5 \times (\$5,000 + \$10,000 - \$8,000) = \$1,400$
(d) $1/5 \times (\$5,000 + \$10,000 - \$8,000 + \$10,000 - \$8,000) = \$1,800$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 76,900	$46,000	.....	.....	$122,900
Y's Stock (a)	47,100	.....	.....	$47,100	.....
Goodwill	10,000	15,000	.....	1,700	23,300
	$134,000	$61,000			$146,200
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	34,000	8,800	8,800	.....	34,000
Outside	.....	2,200	.....	.....	2,200
	$134,000	$61,000			$146,200

(a) For calculations see Case R, Chapter I (page 23).

Case Ad

Same as Case Aa if each company had paid an $11,000 cash dividend on December 31st of each of the years in question.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 73,300	$37,000	.....	.....	$110,300
Y's Stock (a)	41,700	.....	.....	$41,700	.....
Goodwill	10,000	15,000	$ 100	.....	25,100
	$125,000	$52,000			$135,400
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (b)	25,000	1,600	1,600	.....	25,000
Outside	.....	400	.....	.....	400
	$125,000	$52,000			$135,400

(a) For calculation see Case S, Chapter I (page 24).
(b) The mathematics of the elimination entries is:

	200 Shares	100 Shares	100 Shares	Total
Par	$20,000	$10,000	$10,000	$40,000
Surplus (c)	800	400	400	1,600
Goodwill	*1,000	200	900	100
	$19,800	$10,600	$11,300	$41,700

* Denotes negative.

(c) The calculation of the surplus element is:

	200 Shares	100 Shares	100 Shares
Surplus Purchased	$2,000	$800	$600
1923 Liquidating Dividend	*400	....	....
1924 Liquidating Dividend	*400	*200	....
1925 Liquidating Dividend	*400	*200	*200
Balance	$ 800	$400	$400

* Denotes negative.

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 73,300	$37,000	.....	.....	$110,300
Y's Stock (a)	41,700	.....	.....	$41,700	.....
Goodwill	10,000	15,000	$ 100	.....	25,100
	$125,000	$52,000			$135,400
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	25,000	1,600	1,600	.....	25,000
Outside	.....	400	.....	.....	400
	$125,000	$52,000			$135,400

(a) For calculation see Case S, Chapter I (page 24).

Case Ba

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$3,500	Capital Stock	$100,000	$5,000
Goodwill	10,000	3,000	Surplus	10,000	1,500
	$110,000	$6,500		$110,000	$6,500

Company X made the following stock purchases directly from Company Y: January 1, 1923, the date of the above balance sheets, 25 shares at 115; January 1, 1924, 175 shares at 121; January 1, 1925, 250 shares at 130. If each company made an operating profit of $6,000 during each of the years in question, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 61,450	$78,050	.....	.....	$139,500
Y's Stock	56,550	.....	.....	$56,550	.....
Goodwill	10,000	3,000	.....	3,000	10,000
	$128,000	$81,050			$149,500

	Co. X	Co. Y	Eliminations		C. B. S.
Capital Stock:					
Inside	$100,000	$45,000	$45,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside (a)	28,000	27,945	15,745	.....	40,200
Outside	.....	3,105	.....	.....	3,105
Revaluation Reserve	.....	.....	.....	$1,195	1,195
	$128,000	$81,050			$149,500

(a) The mathematics of the elimination entries is:

	25 Shares	175 Shares	250 Shares	Total
Par	$2,500	$17,500	$25,000	$45,000
Surplus (b)	625	6,615	8,505	15,745
Goodwill	*250	*2,940	*1,005	*4,195
	$2,875	$21,175	$32,500	$56,550

* Denotes negative.

(b) The calculation of the surplus element is:

	25 Shares	175 Shares	250 Shares
Surplus Owned:			
After Purchase	$625 (c)	$9,240 (e)	$22,545 (g)
Before Purchase	nil	2,625 (d)	14,040 (f)
Difference	$625	$6,615	$ 8,505

(c) $25/75 \times (\$1,500 + \$375) = \$625$
(d) $25/75 \times (\$1,500 + \$375 + \$6,000) = \$2,625$
(e) $20/25 \times (\$1,500 + \$375 + \$6,000 + \$3,675) = \$9,240$
(f) $20/25 \times (\$1,500 + \$375 + \$6,000 + \$3,675 + \$6,000) = \$14,040$
(g) $45/50 \times (\$1,500 + \$375 + \$6,000 + \$3,675 + \$6,000 + \$7,500) = \$22,545$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 61,450	$78,050	.....	.....	$139,500
Y's Stock (a)	68,750	.....	.....	$68,750	.....
Goodwill	10,000	3,000	.....	3,000	10,000
	$140,200	$81,050			$149,500
Capital Stock:					
Inside	$100,000	$45,000	$45,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside	40,200	27,945	27,945	.....	40,200
Outside	.....	3,105	.....	.....	3,105
Revaluation Reserve	.....	.....	.....	1,195	1,195
	$140,200	$81,050			$149,500

(a) The mathematics for the Investment account is:

January 1, 1923, Purchase Price	$ 2,875
Share (25/75) of 1923 Profits Taken Up	2,000
January 1, 1924, Purchase Price	21,175
Share (200/250) of 1924 Profits Taken Up	4,800
January 1, 1925, Purchase Price	32,500
Share (450/500) of 1925 Profits Taken Up	5,400
	$68,750

Case Bb

Same as Case Ba if each company had lost $1,000 instead of having made $6,000 during each of the years in question.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 40,450	$57,050	.....	.....	$ 97,500
Y's Stock	56,550	.....	.....	$56,550	.....
Goodwill	10,000	3,000	$ 472	.....	13,472
	$107,000	$60,050			$110,972
Capital Stock:					
Inside	$100,000	$45,000	45,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside (a)	7,000	9,045	11,078	.....	4,967
Outside	.....	1,005	.....	.....	1,005
	$107,000	$60,050			$110,972

(a) The mathematics of the elimination entries is:

	25 Shares	175 Shares	250 Shares	Total
Par	$2,500	$17,500	$25,000	$45,000
Surplus (b)	625	3,348	7,105	11,078
Goodwill	*250	327	395	472
	$2,875	$21,175	$32,500	$56,550

* Denotes negative.

(b) The calculation of the surplus element is:

	25 Shares	175 Shares	250 Shares
Surplus Owned:			
After Purchase	$625 (c)	$3,640 (e)	$9,945 (g)
Before Purchase	nil	292 (d)	2,840 (f)
Difference	$625	$3,348	$7,105

(c) $25/75 \times (\$1,500 + \$375) = \$625$
(d) $25/75 \times (\$1,500 + \$375 - \$1,000) = \$292$
(e) $20/25 \times (\$1,500 + \$375 - \$1,000 + \$3,675) = \$3,640$

(f) 20/25 × ($1,500 + $375 − $1,000 + $3,675 − $1,000) = $2,840
(g) 45/50 × ($1,500 + $375 − $1,000 + $3,675 − $1,000 + $7,500) = $9,945

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 40,450	$57,050	.....	.....	$ 97,500
Y's Stock (a)	54,517	.....	.....	$54,517	.....
Goodwill	10,000	3,000	$ 472	.....	13,472
	$104,967	$60,050			$110,972
Capital Stock:					
Inside	$100,000	$45,000	45,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside	4,967	9,045	9,045	.....	4,967
Outside	.....	1,005	.....	.....	1,005
	$104,967	$60,050			$110,972

(a) The mathematics for the Investment account is:

January 1, 1923, Purchase Price	$ 2,875	
January 1, 1924, Purchase Price	21,175	
January 1, 1925, Purchase Price	32,500	$56,550
Share (25/75) of 1923 Loss Taken Up	$ 333	
Share (200/250) of 1924 Loss Taken Up	800	
Share (450/500) of 1925 Loss Taken Up	900	2,033
		$54,517

Case Bc

Same as Case Ba if each company paid a $3,000 cash dividend on December 31 of each of the years in question.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 58,550	$69,050	.....	.....	$127,600
Y's Stock	56,550	.....	.....	$56,550	.....
Goodwill	10,000	3,000	.....	2,195	10,805
	$125,100	$72,050			$138,405
Capital Stock:					
Inside	$100,000	$45,000	$45,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside (a)	25,100	19,845	13,745	.....	31,200
Outside	.....	2,205	.....	.....	2,205
	$125,100	$72,050			$138,405

(a) The mathematics of the elimination entries is:

	25 Shares	175 Shares	250 Shares	Total
Par	$2,500	$17,500	$25,000	$45,000
Surplus (b)	625	5,215	7,905	13,745
Goodwill	*250	*1,540	*405	*2,195
	$2,875	$21,175	$32,500	$56,550

* Denotes negative.

(b) The calculation of the surplus element is:

	25 Shares	175 Shares	250 Shares
Surplus Owned:			
After Purchase	$625 (c)	$6,840 (e)	$17,145 (g)
Before Purchase	nil	1,625 (d)	9,240 (f)
Difference	$625	$5,215	$ 7,905

(c) $25/75 \times (\$1,500 + \$375) = \$625$
(d) $25/75 \times (\$1,500 + \$375 + \$6,000 - \$3,000) = \$1,625$
(e) $20/25 \times (\$1,500 + \$375 + \$6,000 - \$3,000 + \$3,675) = \$6,840$
(f) $20/25 \times (\$1,500 + \$375 + \$6,000 - \$3,000 + \$3,675 + \$6,000 - \$3,000) = \$9,240$
(g) $45/50 \times (\$1,500 + \$375 + \$6,000 - \$3,000 + \$3,675 + \$6,000 - \$3,000 + \$7,500) = \$17,145$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 58,550	$69,050	.....	.....	$127,600
Y's Stock (a)	62,650	.....	.....	$62,650	.....
Goodwill	10,000	3,000	.....	2,195	10,805
	$131,200	$72,050			$138,405
Capital Stock:					
Inside	$100,000	$45,000	$45,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside	31,200	19,845	19,845	.....	31,200
Outside	.....	2,205	.....	.....	2,205
	$131,200	$72,050			$138,405

(a) The mathematics for the Investment account is:

January 1, 1923, Purchase Price	$ 2,875	
Share (25/75) of 1923 Profits Taken Up	2,000	
January 1, 1924, Purchase Price	21,175	
Share (200/250) of 1924 Profits Taken Up	4,800	
January 1, 1925, Purchase Price	32,500	
Share (450/500) of 1925 Profits Taken Up	5,400	$68,750
Share (25/75) of 1923 Dividends Deducted	$ 1,000	
Share (200/250) of 1924 Dividends Deducted	2,400	
Share (450/500) of 1925 Dividends Deducted	2,700	6,100
		$62,650

Case Bd

Same as Case Ba if each company paid a $6,300 cash dividend on December 31 of each of the years in question.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 55,360	$59,150	.....	.....	$114,510
Y's Stock	55,940	.....	.....	$55,940	.....
Goodwill	10,000	3,000	$ 5	.....	13,005
	$121,300	$62,150			$127,515
Capital Stock:					
Inside	$100,000	$45,000	45,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside (a)	21,300	10,935	10,935	.....	21,300
Outside	.....	1,215	.....	.....	1,215
	$121,300	$62,150			$127,515

(a) The mathematics of the elimination entries is:

	25 Shares	175 Shares	250 Shares	Total	Liquidating Dividends	Final
Par	$2,500	$17,500	$25,000	$45,000	.....	$45,000
Surplus (b)	625	3,675	7,245	11,545	*$610 (h)	10,935
Goodwill	*250	.....	255	5	.....	5
	$2,875	$21,175	$32,500	$56,550	*$610	$55,940

* Denotes negative.

(b) The calculation of the surplus purchased with each block of stock is:

	25 Shares	175 Shares	250 Shares
Surplus Owned:			
After Purchase	$625 (c)	$4,200 (e)	$11,205 (g)
Before Purchase	nil	525 (d)	3,960 (f)
Difference	$625	$3,675	$ 7,245

(c) $25/75 \times (\$1,500 + \$375) = \$625$
(d) $25/75 \times (\$1,500 + \$375 + \$6,000 - \$6,300) = \$525$
(e) $20/25 \times (\$1,500 + \$375 + \$6,000 - \$6,300 + \$3,675) = \$4,200$
(f) $20/25 \times (\$1,500 + \$375 + \$6,000 - \$6,300 + \$3,675 + \$6,000 - \$6,300) = \$3,960$
(g) $45/50 \times (\$1,500 + \$375 + \$6,000 - \$6,300 + \$3,675 + \$6,000 - \$6,300 + \$7,500) = \$11,205$

(h) The calculation of the liquidating dividends is:

	25 Shares	175 Shares	250 Shares	Total
1923 Dividend	$100	....	....	$100
1924 Dividend	30	$210	....	240
1925 Dividend	15	105	$150	270
	$145	$315	$150	$610

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 55,360	$59,150	.....	.....	$114,510
Y's Stock (a)	55,940	.....	.....	$55,940	.....
Goodwill	10,000	3,000	$ 5	.....	13,005
	$121,300	$62,150			$127,515
Capital Stock:					
Inside	$100,000	45,000	$45,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside	21,300	10,935	10,935	.....	21,300
Outside	.....	1,215	.....	.....	1,215
	$121,300	$62,150			$127,515

(a) The mathematics for the Investment account is:

January 1, 1923, Purchase Price	$ 2,875	
Share (25/75) of 1923 Profits Taken Up	2,000	
January 1, 1924, Purchase Price	21,175	
Share (200/250) of 1924 Profits Taken Up	4,800	
January 1, 1925, Purchase Price	32,500	
Share (450/500) of 1925 Profits Taken Up	5,400	$68,750
Share (25/75) of 1923 Dividend Deducted	$ 2,100	
Share (200/250) of 1924 Dividend Deducted	5,040	
Share (450/500) of 1925 Dividend Deducted	5,670	12,810
		$55,940

Since the Capital Surplus in the above problem was contributed by the holding company, the distribution of the premium constitutes a liquidating dividend.

Case Be

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$45,000	Capital Stock	$100,000	$40,000
Goodwill	10,000	5,000	Surplus	10,000	10,000
	$110,000	$50,000		$110,000	$50,000

On January 1, 1925, the date of the above balance sheets, Company X bought 300 shares of Company Y's stock at 120 on the open market. On January 1, 1926, Company Y sold its own stock as follows: Company X 80 shares at 150 and Cletus Howard 20 shares at 140. If each company made a net operating profit of $10,000 during 1925; make a consolidated balance sheet after the sale.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 62,000	$69,800	.....	.....	$131,800
Y's Stock	48,000	.....	.....	$48,000	.....
Goodwill	10,000	5,000	.....	1,491	13,509
	$120,000	$74,800			$145,309
Capital Stock:					
Inside	$100,000	$38,000	$38,000	.....	$100,000
Outside	.....	12,000	.....	.....	12,000
Surplus:					
Inside (a)	20,000	18,848	11,491	.....	27,357
Outside	.....	5,952	.....	.....	5,952
	$120,000	$74,800			$145,309

(a) The mathematics of the elimination entries is:

	300 Shares		80 Shares		Total
Par	$30,000		$ 8,000		$38,000
Surplus	7,500	(b)	3,991	(c)	11,491
Goodwill	*1,500		9		*1,491
	$36,000		$12,000		$48,000

* Denotes negative.

(b) $3/4 \times \$10,000 = \$7,500$

(c) The calculation of the surplus element for the final purchase is:

Surplus Owned:		
After Purchase	$18,848	(e)
Before Purchase	14,857	(d)
	$ 3,991	

(d) $30/42 \times (\$10,000 + \$10,000 + \$800) = \$14,857$

(e) $38/50 \times (\$10,000 + \$10,000 + \$800 + \$4,000) = \$18,848$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 62,000	$69,800	.....	.....	$131,800
Y's Stock (a)	55,357	.....	.....	$55,357	.....
Goodwill	10,000	5,000	.....	1,491	13,509
	$127,357	$74,800			$145,309
Capital Stock:					
Inside	$100,000	$38,000	$38,000	.....	$100,000
Outside	.....	12,000	.....	.....	12,000
Surplus:					
Inside	27,357	18,848	18,848	.....	27,357
Outside	.....	5,952	.....	.....	5,952
	$127,357	$74,800			$145,309

(a) The mathematics of the Investment account is:

January 1, 1925, Purchase Price		$36,000
Share (3/4) of 1925 Profits		7,500
Carrying Value before Sale to Mr. Howard		$43,500
Ownership in Company Y's Surplus (Rule XII):		
Before Sale to Mr. Howard (3/4 × $20,000)	$15,000	
After Sale to Mr. Howard (30/42 × $20,800)	14,857	143
Carrying Value after Sale to Mr. Howard		$43,357
December 31, 1925, Purchase Price		12,000
Final Carrying Value		$55,357

CHAPTER VIII

SALE OF STOCK RIGHTS

Closely connected with the sale of the subsidiary's stock to the minority interests is the holding company's sale of the subscription rights in the stock of a subsidiary. The receipts from the sale of stock rights can not be regarded as all profit because the value of the original investment is changed when the new stock is issued. The difference between the receipts for the stock rights and the change in the carrying value of the controlling investment caused by the sale of the rights constitutes a profit or loss item.

The sale of stock rights affects the investment account of a holding company in much the same way that the sale of stock received as a stock dividend. Both sales prorate the carrying value of the investment account over the revised number of shares of stock.

When a sale of stock rights occurs the following entries, or a compound entry the equivalent thereof, should be made under both the Cost Value and Actual Value Methods on the books of the holding company.

Y's Stock (for the subscription price of the stock covered by the rights)	$.....	
Cash		$.....
Cash (For subscription price of the stock covered by the rights plus the sales price of rights)	$.....	
Y's Stock (For the product of the number of shares covered by the rights multiplied by the quotient of the sum of the subscription price of the stock covered by the rights plus the carrying value of the original purchase divided by the sum of the number of shares of stock held just prior to the issuance of the rights plus the number of shares covered by the rights)		$.....
Profit and Loss		$.....

Rule XVII

Under the Cost Value Method, calculate the carrying value of the controlling investment in a subsidiary after the holding company has sold stock rights in the stock of the subsidiary as though the stock covered by the rights had actually been purchased at the subscription price and then immediately sold at the subscription price plus the sales price of the rights.

Analyze and eliminate as usual (Rules XIII and XV).

Rule XVIII

Under the Actual Value Method, calculate the carrying value of the controlling investment in a subsidiary after the holding company has sold stock rights in the stock of the subsidiary as though the stock covered by the rights had actually been purchased at the subscription price and then immediately sold at the subscription price plus the sales price of the rights.

Analyze and eliminate as usual (Rules XIV and XVI).

The above rules are in accordance with the ruling of the United States Supreme Court in Miles *v.* Safe Deposit and Trust Company of Baltimore (259 U. S. 247; Case 212).

Cases.—The most important variations in the sale by the holding company of stock rights in the stock of a subsidiary:

A. When all rights are sold.
B. When some rights are sold and some exercised.

Case A

On January 1, 1924, the date of the following balance sheets, Company X purchased 300 shares of Company Y's stock at 150 on the open market.

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$40,000	Capital Stock	$100,000	$40,000
Goodwill	10,000	4,000	Surplus	10,000	4,000
	$110,000	$44,000		$110,000	$44,000

On January 1, 1925, Company Y gave its stockholders the right to subscribe for new stock up to 25 per cent of their holdings at 150. Company X sold its rights for $4,000. Assuming that all the stock rights were exercised and that each company made $20,000 from operations during each of the years in question, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 99,000	$95,000	.....	.....	$194,000
Y's Stock	45,000	.....	.....	$45,000	.....
Goodwill	10,000	4,000	$ 9,600	.....	23,600
	$154,000	$99,000			$217,600
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside	54,000	29,400	5,400	.....	78,000
Outside	.....	19,600	.....	.....	19,600
	$154,000	$99,000			$217,600

Co. X's Journal Entries

Y's Stock	$45,000	
Other Assets		$45,000
For purchase of original investment.		
Other Assets	$20,000	
Surplus		$20,000
To record 1924 profits.		
Y's Stock	$11,250	
Other Assets		$11,250
For theoretical purchase of stock covered by rights.		
Other Assets	$15,250	
Y's Stock		$11,250
Surplus		4,000
For actual sale of rights and theoretical sale of stock covered by rights.		

Other Assets	$20,000	
Surplus		$20,000

To record 1925 profits.

Co. Y's Journal Entries

Other Assets	$40,000	
Surplus		$40,000

For profits of 1924 and 1925.

Other Assets	$15,000	
Capital Stock		$10,000
Surplus		5,000

For issue of new stock.

The mathematics of the eliminating entries is:

	Original Balance	Theoretical Purchase	Before Sale	After Sale
Par	$30,000	$ 7,500	$37,500 × 4/5	$30,000
Surplus	3,000 (a)	3,750 (b)	6,750 × 4/5	5,400
Goodwill	12,000	.....	12,000 × 4/5	9,600
	$45,000	$11,250	$56,250 × 4/5	$45,000

(a) $3/4 \times \$4,000 = \$3,000$

(b) $3/4 \times (\$4,000 + \$20,000) = \$18,000$, surplus owned before theoretical purchase.

$3/4 \times (\$4,000 + \$20,000 + \$3,750 + \$1,250) = \$21,750$, surplus owned after theoretical purchase.

$\$21,750 - \$18,000 = \$3,750$, surplus purchased.

The accuracy of the above solution may be established thus:

X's Starting Surplus	$10,000
X's Operating Profit	40,000
X's Profit on Sale of Rights	4,000
X's Share of Y's Profit (3/5)	24,000
Consolidated Surplus	$78,000

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 99,000	$95,000	.....	.....	$194,000
Y's Stock	69,000	.....	.....	$69,000	.....
Goodwill	10,000	4,000	$ 9,600	.....	23,600
	$178,000	$99,000			$217,600
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside	78,000	29,400	29,400	.....	78,000
Outside	.....	19,600	.....	.....	19,600
	$178,000	$99,000			$217,600

Co. X's Journal Entries

Y's Stock	$45,000	
Other Assets		$45,000
For purchase of original investment.		
Other Assets	$20,000	
Surplus		$20,000
For 1924 profits.		
Y's Stock	$15,000	
Surplus		$15,000
For share (3/4) of Co. Y's 1924 profits.		
Y's Stock	$11,250	
Other Assets		$11,250
To record theoretical purchase.		
Other Assets	$15,250	
Y's Stock		$14,250
Surplus		1,000
For theoretical sale of stock covered by rights and actual sale of rights.		
Other Assets	$20,000	
Surplus		$20,000
For 1925 profits.		
Y's Stock	$12,000	
Surplus		$12,000
For share (3/5) of Co. Y's 1925 profits.		

Co. Y's Journal Entries

Other Assets	$40,000	
Surplus		$40,000
For profits of 1924 and 1925.		
Other Assets	$15,000	
Capital Stock		$10,000
Surplus		5,000
For issue of new stock.		

Case B

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	Capital Stock	$100,000	$50,000
Goodwill	10,000	5,000	Surplus	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1924, the date of the above balance sheets, Company X purchased 400 shares of Company Y's stock at

125 on the open market. On January 1, 1925, Company Y issued rights to subscribe for new stock up to present holdings at 105. Company X sold one-fourth of its rights for $3,000. Assuming that all the rights were exercised and that each company made an operating profit of 10 per cent on its outstanding stock during each of the years in question, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 41,500	$117,500	.....	.....	$159,000
Y's Stock	80,500	.....	.....	$80,500	.....
Goodwill	10,000	5,000	$ 5,250	.....	20,250
	$132,000	$122,500			$179,250
Capital Stock:					
Inside	$100,000	$ 70,000	70,000	.....	$100,000
Outside	.....	30,000	.....	.....	30,000
Surplus:					
Inside	32,000	15,750	5,250	.....	42,500
Outside	.....	6,750	.....	.....	6,750
	$132,000	$122,500			$179,250

Co. X's Journal Entries

Y's Stock	$50,000	
Other Assets		$50,000
For purchase of original investment.		
Other Assets	$20,000	
Surplus		$20,000
To record 1924 and 1925 profits.		
Y's Stock	$42,000	
Other Assets		$42,000
For partly real and partly theoretical purchase of stock covered by rights.		
Other Assets	$13,500	
Y's Stock		$11,500
Surplus		2,000
For actual sale of rights and theoretical sale of the stock covered by rights.		

Co. Y's Journal Entries

Other Assets	$ 5,000	
Surplus		$ 5,000
For 1924 profits.		

Other Assets	$52,500	
Capital Stock		$50,000
Surplus		2,500

For issue of new stock.

Other Assets	$10,000	
Surplus		$10,000

For 1925 profits.

The mathematics of the eliminating entries is:

	Original Balance	Theoretical Purchase	Before Sale	After Sale
Par	$40,000	$40,000	$80,000 × 7/8	$70,000
Surplus	4,000 (a)	2,000 (b)	6,000 × 7/8	5,250
Goodwill	6,000	.....	6,000 × 7/8	5,250
	$50,000	$42,000	$92,000 × 7/8	$80,500

(a) $4/5 \times \$5,000 = \$4,000$

(b) $4/5 \times (\$5,000 + \$5,000) = \$8,000$, surplus owned before theoretical purchase.
$4/5 \times (\$5,000 + \$5,000 + \$2,000 + \$500) = \$10,000$, surplus owned after theoretical purchase.
$\$10,000 - \$8,000 = \$2,000$, surplus purchased.

The accuracy of the above solution may be proven thus:

X's Starting Surplus	$10,000
X's Operating Profits	20,000
X's Profit on Sale of Rights	2,000
X's Share of Y's Profit (7/10)	10,500
Consolidated Surplus	$42,500

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 41,500	$117,500	.....	.....	$159,000
Y's Stock	91,000	.....	.....	$91,000	.....
Goodwill	10,000	5,000	$ 5,250	.....	20,250
	$142,500	$122,500			$179,250
Capital Stock:					
Inside	$100,000	$ 70,000	70,000	.....	$100,000
Outside	.....	30,000	.....	.....	30,000
Surplus:					
Inside	42,500	15,750	15,750	.....	42,500
Outside	.....	6,750	.....	.....	6,750
	$142,500	$122,500			$179,250

Co. X's Journal Entries

Y's Stock	$50,000	
Other Assets		$50,000

For purchase of original investment.

Other Assets	$10,000	
Surplus		$10,000
For 1924 profits.		
Y's Stock	$ 4,000	
Surplus		$ 4,000
For share (4/5) of Co. Y's 1924 profits.		
Y's Stock	$42,000	
Other Assets		$42,000
For theoretical and actual purchase.		
Other Assets	$13,500	
Y's Stock		$12,000
Surplus		1,500
For theoretical sale of stock covered by rights and actual sale of rights.		
Other Assets	$10,000	
Surplus		$10,000
For 1925 profits.		
Y's Stock	$ 7,000	
Surplus		$ 7,000
For share (7/10) of Co. Y's 1925 profits.		

Co. Y's Journal Entries

Other Assets	$ 5,000	
Surplus		$ 5,000
For 1924 profits.		
Other Assets	$52,500	
Capital Stock		$50,000
Surplus		2,500
For issue of new stock.		
Other Assets	$10,000	
Surplus		$10,000
For 1925 profits.		

CHAPTER IX

NO-PAR STOCK

The effect of the subsidiary's stock being without par value on the technique required in making a consolidated balance sheet depends on the method used by the subsidiary in recording its net worth accounts. The subsidiary has the choice of two methods of recording its net worth accounts when the stock has no par value, viz: (a) the use of both a No-Par Capital Stock and Surplus account, and (b) the use of only a No-Par Capital Stock account.

When Surplus Account Is Used

Stated Value.—When a Surplus account is used, the receipts on the issue of the stock are credited to the No-Par Capital Stock account and profits and losses are carried to the Surplus account. The quotient of the balance of the No-Par Capital Stock account, when a Surplus account is maintained, divided by the number of shares of no-par stock outstanding is called the stated value of the shares.

Carrying Value.—Under both the Cost Value and Actual Value Methods, the carrying value of investments in the no-par stock of subsidiaries is calculated under the same rules as the carrying value of investments in stock of par value. Whether or not the subsidiary uses a Surplus account in connection with the No-Par Capital Stock account does not affect the calculation of the carrying value of the investment in the no-par stock.

Rule XIX

When a surplus account is maintained in connection with no-par stock, follow the rules for par value stock

under both the Cost Value and Actual Value Methods adapted by substituting the term Stated Value for the term Par Value, whenever the latter appears in the rules.

Cases.—It is entirely possible to have as many variations for no-par stock investments as for ordinary stock investments. As illustrations the following have been chosen:

A. When surplus existed at date of acquisition.

B. When deficit existed at date of acquisition.

Case A

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	No-Par Stocks (Stated Value)	$100,000	$51,000
Goodwill	10,000	5,000	Surplus	10,000	4,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets, Company X purchased 400 out of the 500 shares of Company Y's stock at 125 on the open market. Make a consolidated balance sheet as of January 1, 1926, if each company made an operating profit of $10,000 during 1925, and if each company paid an $8,000 cash dividend on December 31, 1925.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 58,400	$52,000	.....	.....	$110,400
Y's Stock (400)	50,000	.....	.....	$50,000	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$118,400	$57,000			$131,400
No-Par Stock:					
Inside	$100,000	$40,800	40,800	.....	$100,000
Outside	.....	10,200	.....	.....	10,200
Surplus:					
Inside (a)	18,400	4,800	3,200	.....	20,000
Outside	.....	1,200	.....	.....	1,200
	$118,400	$57,000			$131,400

(a) $4/5 \times \$4{,}000 = \$3{,}200$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 58,400	$52,000	.....	.....	$110,400
Y's Stock (a)	51,600	.....	.....	$51,600	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$120,000	$57,000			$131,400
No-Par Stock:					
Inside	$100,000	$40,800	40,800	.....	$100,000
Outside	.....	10,200	.....	.....	10,200
Surplus:					
Inside	20,000	4,800	4,800	.....	20,000
Outside	.....	1,200	.....	.....	1,200
	$120,000	$57,000			$131,400

(a) $\$50,000 + (4/5 \times \$10,000) - (4/5 \times \$8,000) = \$51,600$

Since the goodwill is the excess of the purchase price over the book value received, the $6,000 goodwill in the elimination entry is the product of the number of shares multiplied by this excess per share $[400 \times (\$125 - \$110)]$.

Case B

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	No-Par Stock (Stated Value)	$100,000	$57,500
Goodwill	10,000	5,000	Surplus	10,000	2,500*
	$110,000	$55,000		$110,000	$55,000

* Denotes deficit.

On January 1, 1925, the date of the above balance sheets, Company X purchased 450 out of the 500 shares of Company Y's stock at 120 on the open market. Make a consolidated balance sheet as of January 1, 1926, if each company suffered an operating loss of $1,000 during 1925.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 45,000	$49,000	.....	.....	$ 94,000
Y's Stock (450)	54,000	.....	.....	$54,000	.....
Goodwill	10,000	5,000	$ 4,500	.....	19,500
	$109,000	$54,000			$113,500

	Co. X	Co. Y	Eliminations		C.B.S.
No-Par Stock:					
Inside	$100,000	$51,750	$51,750	.....	$100,000
Outside	.....	5,750	.....	.....	5,750
Surplus:					
Inside (a)	9,000	*3,150	.....	$2,250	8,100
Outside	.....	*350	.....	.....	*350
	$109,000	$54,000			$113,500

* Denotes deficit.

(a) $9/10 \times \$2,500 = \$2,250$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 45,000	$49,000	.....	.....	$ 94,000
Y's Stock (a)	53,100	.....	.....	$53,100	.....
Goodwill	10,000	5,000	$ 4,500	.....	19,500
	$108,100	$54,000			$113,500
No-Par Stock:					
Inside	$100,000	$51,750	51,750	.....	$100,000
Outside	.....	5,750	.....	.....	5,750
Surplus:					
Inside	8,100	*3,150	.....	3,150	8,100
Outside	.....	*350	.....	.....	*350
	$108,100	$54,000			$113,500

* Denotes deficit.

(a) $\$54,000 - (9/10 \times \$1,000) = \$53,100$

Case A and Case B show that the use of no-par stock does not change the consolidated technique. The elimination entry for both par value stock and no-par stock merely eliminates the book value and transfers the goodwill.

When Surplus Account Is Not Used

When the subsidiary elects not to use a Surplus account in conjunction with its no-par stock, the net worth accounts are maintained in much the same way as they are in sole proprietorship. That is, profits and losses are closed directly into the capital investment account (No-Par Stock account).

Book Value.—When a Surplus account is not used, the quotient of the balance of the No-Par Capital Stock account

divided by the number of shares of no-par stock outstanding is called the book value of the shares. Attention is invited to the fact the terms Book Value and Stated Value in connection with no-par stock are not synonyms.

Rule XX

When a Surplus account is not maintained in connection with no-par stock, follow the rules for par value stock adapted so that,

1. Under the Cost Value Method, the acquisition book value of the no-par stock purchased and still held, adjusted for dividends received thereon out of earnings made prior to date of acquisition, is eliminated, or,

2. Under the Actual Value Method, the present book value of the no-par stock now held is eliminated.

Cases.—The most important variations in the underlying conditions for investments in the no-par stock of corporations not using a Surplus account are:

A. When a profit has been made since date of acquisition.
B. When a loss has been suffered since date of acquisition.

Case A

	Co. X	Co. Y		Co. X	Co. Y
Other Assets.....	$100,000	$50,000	No-Par Stock.....	$110,000	$55,000
Goodwill.....	10,000	5,000			
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets, Company X purchased 400 out of the 500 shares of Company Y's stock at 125 on the open market. Make a consolidated balance sheet as of January 1, 1926, if each company made an operating profit of $10,000 during 1925, and if each company paid an $8,000 cash dividend on December 31, 1925.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 58,400	$52,000	.....	.....	$110,400
Y's Stock (400)	50,000	.....	.....	$50,000	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$118,400	$57,000			$131,400
No-Par Stock:					
Inside (a)	$118,400	$45,600	44,000	.....	$120,000
Outside	.....	11,400	.....	.....	11,400
	$118,400	$57,000			$131,400

(a) $4/5 \times \$55,000 = \$44,000$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 58,400	$52,000	.....	.....	$110,400
Y's Stock (a)	51,600	.....	.....	$51,600	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$120,000	$57,000			$131,400
No-Par Stock:					
Inside	$120,000	$45,600	45,600	.....	$120,000
Outside	.....	11,400	.....	.....	11,400
	$120,000	$57,000			$131,400

(a) $\$50,000 + (4/5 \times \$10,000) - (4/5 \times \$8,000) = \$51,600$

A comparison of the above solutions with the solution to Case A given under the caption, "When Surplus Account Is Used," shows the effect of the use of the Surplus account in connection with no-par stock on the technique of preparing consolidated balance sheets.

Case B

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	No-Par Stock	$110,000	$55,000
Goodwill	10,000	5,000			
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets, Company X purchased 450 out of the 500 shares of Company Y's stock at 120 on the open market. Make a consolidated balance sheet as of January 1, 1926, if each company suffered an operating loss of $1,000 during 1925.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 45,000	$49,000	.....	.....	$ 94,000
Y's Stock (450)	54,000	.....	.....	$54,000	.....
Goodwill	10,000	5,000	$ 4,500	.....	19,500
	$109,000	$54,000			$113,500
No-Par Stock:					
Inside (a)	$109,000	$48,600	49,500	.....	$108,100
Outside	.....	5,400	.....	.....	5,400
	$109,000	$54,000			$113,500

(a) $9/10 \times \$55,000 = \$49,500$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 45,000	$49,000	.....	.....	$ 94,000
Y's Stock (a)	53,100	.....	.....	$53,100	.....
Goodwill	10,000	5,000	$ 4,500	.....	19,500
	$108,100	$54,000			$113,500
No-Par Stock:					
Inside	$108,100	$48,600	48,600	.....	$108,100
Outside	.....	5,400	.....	.....	5,400
	$108,100	$54,000			$113,500

(a) $\$54,000 - (9/10 \times \$1,000) = \$53,100$

A comparison of the above solutions with the solutions to Case B given under the caption, "When Surplus Account Is Used," illustrates the difference in the technique used in preparing consolidated balance sheets when a Surplus account is used in connection with no-par stock and when a Surplus account is not so used.

CHAPTER X

PREFERRED STOCK

The difficulties encountered in the accounting for preferred stock center around its claim to surplus. There are but few court decisions on the rights of preferred stock and these decisions are sometimes contradictory. In the absence of direct legal decisions or dicta, it is well to remember the common law provision that extraordinary rights are possessed only when specifically granted. In this chapter it is assumed that the preferred stock is, by specific covenants in the contract, non-voting, preferred as to capital, and callable only at dividend dates. The effect on consolidated balance sheet technique of investments in the preferred stock of companies affiliated because of common stock ownership depends on whether or not the preferred stock is participating and whether or not it is cumulative.

Non-Participating, Non-Cumulative Preferred Stock

Since non-participating preferred stock can not share in the excess earning power of the subsidiary, its purchaser does not acquire any goodwill with his holdings. From the point of view of the common stock, non-participating preferred stock is a fixed liability, although shown on the balance sheet as a net worth account. As goodwill does not arise in transactions involving liabilities, goodwill should not be shown on the consolidated balance sheet, which is made from the point of view of the common stock, from transactions in non-participating preferred stock. For example, Company X owns all the common stock of Company Y. Should it be decided to retire at a premium Company Y's non-participating preferred stock, it should make no difference on the consolidated balance sheet whether the stock was purchased by the holding company or the

subsidiary. As the premium on treasury non-participating preferred stock would be deducted against surplus, the premium must be eliminated from surplus on the consolidated working papers, if the stock is held by parent company.

As non-cumulative preferred stock has no claim on surplus unless dividends are declared to it, no entries should be made for passed dividends. Should a dividend be received on non-cumulative stock out of subsidiary's surplus at date of acquiring said stock, all the dividend should be credited to Profit and Loss Account as the stock has no legal right to the surplus.

Rule XXI

Under both the Cost Value and Actual Value Methods, ascertain that the holding company's investment in non-participating, non-cumulative preferred stock of a company affiliated because of common stock ownership is carried at cost.

Analyze and eliminate so that any premium or discount is subtracted or added, respectively, to Surplus —Inside and the par value is subtracted from Preferred Stock—Inside.

Cases.—The chief variations in the underlying conditions affecting non-participating, non-cumulative preferred stock are:

A. When dividends on preferred stock have been paid.
B. When dividends on preferred stock have not been paid.

CASE A

	Co. X	Co. Y		Co. X	Co. Y
Other Assets.....	$100,000	$50,000	Common Stock....	$ 75,000	$25,000
Goodwill.....	10,000	5,000	Preferred Stock...	25,000	25,000
			Surplus.....	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets, Company X bought on the open market 200 shares of Com-

pany Y's common stock at 125, and 50 shares of Company Y's preferred (non-participating, non-cumulative) stock at 150. If the only dividend declared and paid by either company since January 1, 1923, was a 6 per cent dividend to the preferred stockholders by Company Y on December 31, 1925, and if each company made an operating profit of $10,000 during 1925, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 77,800	$58,500	.....	.....	$136,300
Y's Common Stock	25,000	.....	.....	$25,000	.....
Y's Preferred Stock	7,500	.....	.....	7,500	.....
Goodwill	10,000	5,000	$ 1,000	.....	16,000
	$120,300	$63,500			$152,300
Common Stock:					
Inside	$ 75,000	$20,000	20,000	.....	$ 75,000
Outside	.....	5,000	.....	.....	5,000
Preferred Stock:					
Inside	25,000	5,000	5,000	.....	25,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside (a)	20,300	10,800	6,500	.....	24,600
Outside (b)	.....	2,700	.....	.....	2,700
	$120,300	$63,500			$152,300

(a) $(4/5 \times \$5,000) + (\$7,500 - \$5,000) = \$6,500$
(b) $1/5 \times (\$15,000 - \$1,500) = \$2,700$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 77,800	$58,500	.....	.....	$136,300
Y's Common Stock (a)	31,800	.....	.....	$31,800	.....
Y's Preferred Stock	7,500	.....	.....	7,500	.....
Goodwill	10,000	5,000	$ 1,000	.....	16,000
	$127,100	$63,500			$152,300
Common Stock:					
Inside	$ 75,000	$20,000	20,000	.....	$ 75,000
Outside	.....	5,000	.....	.....	5,000
Preferred Stock:					
Inside	25,000	5,000	5,000	.....	25,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside (b)	27,100	10,800	13,300	.....	24,600
Outside	.....	2,700	.....	.....	2,700
	$127,100	$63,500			$152,300

(a) $\$25,000 + [4/5 \times (\$10,000 - \$1,500)] = \$31,800$
(b) $\$10,800 + \$2,500 = \$13,300$

It will be noted that under the Actual Value Method, the common stock took up only its share of the profits after paying the preferred dividend.

Case B

Same as Case A if Company Y had not declared or paid the preferred stock dividend.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 77,500	$60,000	.....	.....	$137,500
Y's Common Stock	25,000	.....	.....	$25,000	.....
Y's Preferred Stock	7,500	.....	.....	7,500	.....
Goodwill	10,000	5,000	$ 1,000	.....	16,000
	$120,000	$65,000			$153,500
Common Stock:					
Inside	$ 75,000	$20,000	20,000	.....	$ 75,000
Outside	.....	5,000	.....	.....	5,000
Preferred Stock:					
Inside	25,000	5,000	5,000	.....	25,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside (a)	20,000	12,000	6,500	.....	25,500
Outside (b)	.....	3,000	.....	.....	3,000
	$120,000	$65,000			$153,500

(a) $(4/5 \times \$5,000) + (\$7,500 - \$5,000) = \$6,500$
(b) $1/5 \times (\$5,000 + \$10,000) = \$3,000$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 77,500	$60,000	.....	.....	$137,500
Y's Common Stock (a)	33,000	.....	.....	$33,000	.....
Y's Preferred Stock	7,500	.....	.....	7,500	.....
Goodwill	10,000	5,000	$ 1,000	.....	16,000
	$128,000	$65,000			$153,500
Common Stock:					
Inside	$ 75,000	$20,000	20,000	.....	$ 75,000
Outside	.....	5,000	.....	.....	5,000
Preferred Stock:					
Inside	25,000	5,000	5,000	.....	25,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside (b)	28,000	12,000	14,500	.....	25,500
Outside	.....	3,000	.....	.....	3,000
	$128,000	$65,000			$153,500

(a) $\$25,000 + (4/5 \times \$10,000) = \$33,000$
(b) $\$12,000 + (\$7,500 - \$5,000) = \$14,500$

A comparison of Case A and Case B shows that the consolidated balance sheet in the latter can be converted into the consolidated balance sheet in the former by the following entries:

Surplus—Inside	$1,200	
Surplus—Outside	300	
Other Assets		$1,500
To record payment of preferred dividend.		
Other Assets	$ 300	
Surplus—Inside		$ 300
To record receipt of preferred dividend on intercompany stock.		

The allocation of the charge to Surplus on the ratio of the inside and outside holdings of Company Y's common stock is caused by the fact that no surplus pertains to non-participating, non-cumulative preferred stock.

Non-Participating, Cumulative Preferred Stock

Undeclared cumulative preferred dividends are not legal liabilities, but, in the event there is an earned surplus, they constitute an equitable capital liability. They, however, do not become equitable capital liabilities unless the earnings exceed the amount needed to wipe out past operating deficits. They can not be paid at the expense of the capital invested by the common stockholders, but must be paid before any profits can be assigned to the common stockholders. Since the preferred stock is non-participating, the only surplus that can be allocated to it is the passed cumulative dividends.

Rule XXII

Ascertain that cumulative, non-participating preferred stock in companies affiliated because of common stock ownership is carried by the holding company at,

1. Under the Cost Value Method, the purchase price less any passed cumulative dividends at

date of acquisition received later out of surplus at date of acquisition, and

2. Under the Actual Value Method, the purchase price plus dividends cumulated out of profits since date of acquisition less all dividends received.

Eliminate the balance of (a) the Preferred Stock Investment account on the holding company's books (b) the Preferred Stock—Inside account on the subsidiary's books, and (c) the Surplus Applicable to Preferred Stock—Inside account on the subsidiary's books, and then make the eliminating entries balance by an adjustment to Surplus Applicable to Common Stock—Inside account.

Cases.—The chief variations regarding holding company's investments in the non-participating, cumulative, preferred stock of its subsidiaries are:

A. Passed dividends when surplus exists at acquisition.
B. Passed dividends when surplus does not exist at acquisition.

CASE A

	Co. X	Co. Y		Co. X	Co. Y
Other Assets.....	$100,000	$50,000	Common Stock....	$100,000	$25,000
Goodwill.....	10,000	5,000	Preferred Stock...	.....	25,000
			Surplus.....	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets, Company X bought on the open market 200 shares of Company Y's common stock at 125, and 50 shares of Company Y's preferred (non-participating, 6 per cent cumulative) stock at 150. If the only dividends declared and paid by either company since January 1, 1923, was a triple (18 per cent) dividend to the

preferred stockholders by Company Y on December 31, 1925, and if each company made an operating profit of $10,000 during 1925, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 78,400	$55,500	.....	.....	$133,900
Y's Common Stock	25,000	.....	.....	$25,000	.....
Y's Preferred Stock (a)	6,900	.....	.....	6,900	.....
Goodwill	10,000	5,000	$ 3,400	.....	18,400
	$120,300	$60,500			$152,300
Common Stock:					
Inside	$100,000	$20,000	20,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Preferred Stock:					
Inside	.....	5,000	5,000	.....	.....
Outside	.....	20,000	.....	.....	20,000
Surplus Applicable to Common Stock:					
Inside (b)	20,300	8,400	3,500	.....	25,200
Outside (c)	.....	2,100	.....	.....	2,100
	$120,300	$60,500			$152,300

(a) $7,500 − $600 (passed dividends at acquisition) = $6,900
(b) $\{4/5 \times [\$5,000 - (.12 \times \$25,000)]\} + (\$6,900 - \$5,000) = \$3,500$
(c) The entries affecting Company Y's accounts during 1925 were:

	Starting Balance	Adjustments Dr.	Adjustments Cr.	Final Balances
Surplus Applicable to Common Stock:				
Inside	$ 1,600	.....	$ 6,800 (d)	$ 8,400
Outside	400	.....	1,700 (d)	2,100
Preferred Stock:				
Inside	600	$ 900 (e)	300 (d)	.....
Outside	2,400	3,600 (e)	1,200 (d)	.....
Other Assets	50,000	10,000 (d)	4,500 (e)	55,500

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 78,400	$55,500	.....	.....	$133,900
Y's Common Stock (a)	31,800	.....	.....	$31,800	.....
Y's Preferred Stock (b)	6,900	.....	.....	6,900	.....
Goodwill	10,000	5,000	$ 3,400	.....	18,400
	$127,100	$60,500			$152,300

	Co. X	Co. Y	Eliminations		C. B. S.
Common Stock:					
Inside	$100,000	$20,000	$20,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Preferred Stock:					
Inside	.....	5,000	5,000	.....	.....
Outside	.....	20,000	.....	.....	20,000
Surplus Applicable to Common Stock:					
Inside (c)	27,100	8,400	10,300	.....	25,200
Outside	.....	2,100	.....	.....	2,100
	$127,100	$60,500			$152,300

(a) $\$25,000 + \{4/5 \times [\$10,000 - (.06 \times \$25,000)]\} = \$31,800$
(b) $\$7,500 + (.06 \times \$5,000) - (.18 \times \$5,000) = \$6,900$
(c) $\$8,400 + (\$6,900 - \$5,000) = \$10,300$

Handling passed cumulative preferred dividends declared out of Surplus at date of acquiring the preferred stock does not change the consolidated balance sheet because treating them as income would increase both Company X's surplus and the premium on the preferred by $600. The elimination of the two items against each other would leave the same result. The recommended technique, however, gives the true individual balance sheet for Company X.

Case B

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$40,000	Common Stock	$100,000	$25,000
Goodwill	10,000	5,000	Preferred Stock	.....	25,000
			Surplus	10,000	*5,000
	$110,000	$45,000		$110,000	$45,000

* Denotes deficit.

On January 1, 1925, the date of the above balance sheets, Company X bought on the open market 200 shares of Company Y's common stock at 125, and 50 shares of Company Y's preferred (non-participating, 6 per cent cumulative) stock at 150. If the only dividend declared and paid by either company since January 1, 1923, was a double (12 per cent) dividend to the preferred stockholders by Company Y on December 31, 1925, and if each company made an operating profit of $10,000 dur-

ing 1925, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 78,100	$47,000	.....	.....	$125,100
Y's Common Stock	25,000	.....	.....	$25,000	.....
Y's Preferred Stock	7,500	.....	.....	7,500	.....
Goodwill	10,000	5,000	$ 9,000	.....	24,000
	$120,600	$52,000			$149,100
Common Stock:					
Inside	$100,000	$20,000	20,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Preferred Stock:					
Inside	.....	5,000	5,000	.....	.....
Outside	.....	20,000	.....	.....	20,000
Surplus Applicable to Common Stock:					
Inside (a)	20,600	400	.....	1,800	22,800
Outside (b)	.....	100	.....	.....	100
Preferred Stock:					
Inside	.....	300	300	.....	.....
Outside	.....	1,200	.....	.....	1,200
	$120,600	$52,000			$149,100

(a) $(4/5 \times \$5,000) - [\$7,500 - (\$5,000 + \$300)] = \$1,800$

(b) The entries affecting Company Y's accounts during 1925 were:

	Starting Balance	Adjustments Dr.	Adjustments Cr.	Final Balances
Surplus Applicable to Common Stock:				
Inside	*$4,000	.....	$4,400 (c)	$ 400
Outside	*1,000	.....	1,100 (c)	100
Preferred Stock:				
Inside	.....	$ 600 (d)	900 (c)	300
Outside	.....	2,400 (d)	3,600 (c)	1,200
Other Assets	40,000	10,000 (c)	3,000 (d)	47,000

* Denotes deficit.

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 78,100	$47,000	.....	.....	$125,100
Y's Common Stock (a)	29,400	.....	.....	$29,400	.....
Y's Preferred Stock (b)	7,800	.....	.....	7,800	.....
Goodwill	10,000	5,000	$ 9,000	.....	24,000
	$125,300	$52,000			$149,100

	Co. X	Co. Y	Eliminations		C. B. S.
Common Stock:					
Inside	$100,000	$20,000	$20,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Preferred Stock:					
Inside	.....	5,000	5,000	.....	.....
Outside	.....	20,000	.....	.....	20,000
Surplus Applicable to Common Stock:					
Inside (c)	25,300	400	2,900	.....	22,800
Outside	.....	100	.....	.....	100
Preferred Stock:					
Inside	.....	300	300	.....	.....
Outside	.....	1,200	.....	.....	1,200
	$125,300	$52,000			$149,100

(a) $\$25,000 + \{4/5 \times [\$10,000 - (.18 \times \$25,000)]\} = \$29,400$
(b) $\$7,500 + (.18 \times \$5,000) - (.12 \times \$5,000) = \$7,800$
(c) $\$400 + [\$7,800 - (\$5,000 + \$300)] = \$2,900$

The receipt of cumulative dividends passed at date of acquisition was treated as a return of investment in Case A because there was surplus pertaining to the preferred stock at date of acquisition, and as income in Case B because there was no such surplus.

Participating, Non-Cumulative Preferred Stock

The chief peculiarity of participating, non-cumulative preferred stock is its equitable claim on the surplus of the subsidiary, which claim gives the purchaser of the stock a share in the excess earning power of the subsidiary and allows him to acquire goodwill with his holdings.

Rule XXIII

Ascertain that participating, non-cumulative preferred stock in a company affiliated because of common stock ownership is carried by the holding company as though the preferred stock were additional issue of common stock, except that, under the Actual Value Method, the preferred stock does not participate in (a) losses which cause a deficit, and (b) profits which wipe out a deficit.

Ascertain that the subsidiary's current profits and losses have been closed into, and declared dividends have been charged against, its Surplus account, the balance of which, if debit, should be allocated to the common stock, or, if credit, should be allocated between the common and preferred stock on their profit sharing ratio.

Analyze and eliminate as though the preferred stock were an additional issue of common stock, except that, under the Cost Value Method, the balance of the subsidiary's Surplus account at date of acquisition must, if debit, be allocated entirely to the common stock, or, if credit, be allocated between the common and preferred stock on their profit-sharing ratio.

A basic idea running throughout Rule XXIII is that deficits have no connection with preferred stock. The reason is that ordinarily preferred stock is preferred as to capital and thus is unaffected by deficits until the equity of the common stock is exhausted.

Cases.—The chief variations in the underlying conditions affecting investments in participating, non-cumulative preferred stock are:

A. When dividends thereon were paid from profits.
B. When losses causing a deficit were incurred.
C. When profits wipe out a deficit at acquisition.

Case A

	Co. X	Co. Y		Co. X	Co. Y
Other Assets.....	$100,000	$50,000	Common Stock....	$100,000	$25,000
Goodwill.....	10,000	5,000	Preferred Stock...	.....	25,000
			Surplus.....	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets,

Company X bought on the open market 200 shares of Company Y's common stock at 125, and 100 shares of Company Y's preferred (fully participating, non-cumulative) stock at 150. If the only dividend declared and paid by either company since January 1, 1923, was a 6 per cent dividend to both the preferred and common stockholders by Company Y on December 31, 1925, and if each company made an operating profit of $10,000 during 1925, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 71,800	$57,000	.....	.....	$128,800
Y's Common Stock	25,000	.....	.....	$25,000	.....
Y's Preferred Stock	15,000	.....	.....	15,000	.....
Goodwill	10,000	5,000	$ 7,000	.....	22,000
	$121,800	$62,000			$150,800
Common Stock:					
Inside	$100,000	$20,000	20,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Preferred Stock:					
Inside	.....	10,000	10,000	.....	.....
Outside	.....	15,000	.....	.....	15,000
Surplus Applicable to Common Stock:					
Inside (a)	21,800	4,800	2,000	.....	24,600
Outside (b)	.....	1,200	.....	.....	1,200
Preferred Stock:					
Inside (c)	.....	2,400	1,000	.....	1,400
Outside (d)	.....	3,600	.....	.....	3,600
	$121,800	$62,000			$150,800

(a) $20/50 \times \$5,000 = \$2,000$
(b) $5/50 \times (\$5,000 + \$10,000 - \$3,000) = \$1,200$
(c) $10/50 \times \$5,000 = \$1,000$
(d) $15/50 \times (\$5,000 + \$10,000 - \$3,000) = \$3,600$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 71,800	$57,000	.....	.....	$128,800
Y's Common Stock (a)	27,800	.....	.....	$27,800	.....
Y's Preferred Stock (b)	16,400	.....	.....	16,400	.....
Goodwill	10,000	5,000	$ 7,000	.....	22,000
	$126,000	$62,000			$150,800

	Co. X	Co. Y	Eliminations		C. B. S.
Common Stock:					
Inside	$100,000	$20,000	$20,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Preferred Stock:					
Inside	.....	10,000	10,000	.....	.....
Outside	.....	15,000	.....	.....	15,000
Surplus Applicable to Common Stock:					
Inside	26,000	4,800	4,800	.....	26,000
Outside	.....	1,200	.....	.....	1,200
Preferred Stock:					
Inside	.....	2,400	2,400	.....	.....
Outside	.....	3,600	.....	.....	3,600
	$126,000	$62,000			$150,800

(a) $\$25,000 + (20/50 \times \$10,000) - (.06 \times \$20,000) = \$27,800$
(b) $\$15,000 + (10/50 \times \$10,000) - (.06 \times \$10,000) = \$16,400$

While slightly different in form the above solutions agree as both allocate the Surplus $26,000 to the majority interests and $4,800 to the minority interests.

Case B

Same as Case A if no dividends had been declared and each company had suffered an operating loss of $8,000 during 1925.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 52,000	$42,000	.....	.....	$ 94,000
Y's Common Stock	25,000	.....	.....	$25,000	.....
Y's Preferred Stock	15,000	.....	.....	15,000	.....
Goodwill	10,000	5,000	$ 7,000	.....	22,000
	$102,000	$47,000			$116,000
Common Stock:					
Inside	$100,000	$20,000	20,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Preferred Stock:					
Inside	.....	10,000	10,000	.....	.....
Outside	.....	15,000	.....	.....	15,000
Surplus Applicable to Common Stock:					
Inside (a)	2,000	*2,400	2,000	.....	*2,400
Outside (b)	.....	*600	.....	.....	*600
Preferred Stock:					
Inside (c)	.....	.....	1,000	.....	*1,000
Outside	.....	.....	.....	.....	.....
	$102,000	$47,000			$116,000

* Denotes deficit.
(a) $20/50 \times \$5,000 = \$2,000$ (b) $5/25 \times (\$8,000 - \$5,000) = \$600$
(c) $10/50 \times \$5,000 = \$1,000$

SOLUTION—ACTUAL VALUE METHOD

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 52,000	$42,000	.....	.....	$ 94,000
Y's Common Stock (a)	20,600	.....	.....	$20,600	.....
Y's Preferred Stock (b)	14,000	.....	.....	14,000	.....
Goodwill	10,000	5,000	$ 7,000	.....	22,000
	$ 96,600	$47,000			$116,000
Common Stock:					
Inside	$100,000	$20,000	20,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Preferred Stock:					
Inside	.....	10,000	10,000	.....	.....
Outside	.....	15,000	.....	.....	15,000
Surplus Applicable to Common Stock:					
Inside	*3,400	*2,400	.....	2,400	*3,400
Outside	.....	*600	.....	.....	*600
Preferred Stock:					
Inside	.....	.....	.....	.....	.....
Outside	.....	.....	.....	.....	.....
	$ 96,600	$47,000			$116,000

* Denotes deficit.

(a) $25,000 − [20/25 × ($8,000 − $2,500)] = $20,600
(b) $15,000 − (10/50 × $5,000) = $14,000

Both of the above solutions allocate the deficit $3,400 to the majority and $600 to the minority interests. In the formal consolidated balance sheet, all the deficit must be allocated to the common stock as is done in the working papers under the Actual Value Method.

A comparison of Case A and Case B shows the effect of the failure of the preferred stock to assume any portion of a deficit. The difference in Company Y's Surplus in the two cases is a decrease of $15,000 [$18,000 (less operating profit) plus $3,000 (less dividends)]. Of the $15,000, the preferred stock assumed only $6,000 (the amount of surplus pertaining to it) and not $7,500 (its proportionate share).

CASE C

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$40,000	Common Stock	$100,000	$25,000
Goodwill	10,000	5,000	Preferred Stock	.....	25,000
			Surplus	10,000	*5,000
	$110,000	$45,000		$110,000	$45,000

* Denotes deficit.

On January 1, 1925, the date of the above balance sheets, Company X bought on the open market 200 shares of Company Y's common stock at 125, and 100 shares of Company Y's preferred (fully participating, non-cumulative) stock at 150. If each company made an operating profit of $10,000 during 1925, and if neither company declared any dividends, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$50,000	.....	.....	$120,000
Y's Common Stock	25,000	.....	.....	$25,000	.....
Y's Preferred Stock	15,000	.....	.....	15,000	.....
Goodwill	10,000	5,000	$14,000	.....	29,000
	$120,000	$55,000			$149,000
Common Stock:					
Inside	$100,000	$20,000	20,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Preferred Stock:					
Inside	.....	10,000	10,000	.....	.....
Outside	.....	15,000	.....	.....	15,000
Surplus Applicable to Common Stock:					
Inside (a)	20,000	2,000	.....	4,000	26,000
Outside (b)	.....	500	.....	.....	500
Preferred Stock:					
Inside (c)	.....	1,000	.....	.....	1,000
Outside (d)	.....	1,500	.....	.....	1,500
	$120,000	$55,000			$149,000

(a) $20/25 \times \$5,000 = \$4,000$
(b) $5/50 \times (\$10,000 - \$5,000) = \$500$
(c) $10/50 \times (\$10,000 - \$5,000) = \$1,000$
(d) $15/50 \times (\$10,000 - \$5,000) = \$1,500$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$50,000	.....	.....	$120,000
Y's Common Stock (a)	31,000	.....	.....	$31,000	.....
Y's Preferred Stock (b)	16,000	.....	.....	16,000	.....
Goodwill	10,000	5,000	$14,000	.....	29,000
	$127,000	$55,000			$149,000

	Co. X	Co. Y	Eliminations		C. B. S.
Common Stock:					
Inside	$100,000	$20,000	$20,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Preferred Stock:					
Inside	.....	10,000	10,000	.....	.....
Outside	.....	15,000	.....	.....	15,000
Surplus Applicable to Common Stock:					
Inside	27,000	2,000	2,000	.....	27,000
Outside	.....	500	.....	.....	500
Preferred Stock:					
Inside	.....	1,000	1,000	.....	.....
Outside	.....	1,500	.....	.....	1,500
	$127,000	$55,000			$149,000

(a) $\$25,000 + (20/25 \times \$5,000) + (20/50 \times \$5,000) = \$31,000$
(b) $\$15,000 + (10/50 \times \$5,000) = \$16,000$

Both of the above solutions allocate the Surplus $27,000 to the majority and $2,000 to the minority interests.

In case of liquidation of Company Y without further loss on January 1, 1924, the common stockholders would receive $80 a share and the preferred stockholders $100 a share. As Company X paid $125 for each common share and $150 for each preferred share, the goodwill in the elimination entry is $\$14,000\ \{[200 \times (\$125—\$80)] + [100 \times (\$150—\$100)]\}$.

Participating, Cumulative Preferred Stock

The chief peculiarity of participating, cumulative preferred stock is its double claim on surplus, (1) for cumulative dividends, and (2) for participating dividends. Both of these claims constitute equitable capital liabilities instead of legal liabilities.

Rule XXIV

Ascertain that participating, cumulative preferred stock in a company affiliated because of common stock ownership is carried by the holding company at,

1. Under the Cost Value Method, the purchase price

less any dividends received out of surplus at date of acquisition, and

2. Under the Actual Value Method, the purchase price adjusted for pro rata share of the changes in the amount of the subsidiary's surplus pertaining to the preferred stock.

Ascertain that the subsidiary's current profits and losses have been closed into, and declared dividends have been charged against, its Surplus account, the balance of which, if debit, should be allocated to the common stock, or, if credit, should be allocated (1) to passed cumulative dividends, (2) to the preferred stock for current cumulative dividends, (3) to the common stock for its share before the preferred stock participates, and (4) to the common and preferred stocks on their participating basis.

Analyze and eliminate as though the preferred stock were an additional issue of common stock, except that, under the Cost Value Method, the balance of the subsidiary's Surplus account at date of acquisition must, if debit, be allocated entirely to the common stock, or, if credit, be allocated (1) to the passed cumulative dividends, (2) to the common stock for its share before the preferred stock participates, and (3) to the common and preferred stocks on their participating basis.

Cases.—The chief variations in the underlying conditions affecting investments in participating, cumulative preferred stock are:

A. When dividends thereon were paid from profits.
B. When losses causing a deficit were incurred.
C. When profits wiped out a deficit at acquisition.

The proration of the subsidiary's surplus between the com-

mon and participating, cumulative preferred stock must be made in light of the following conditions:

1. The common stockholders are the managers and they must consent to all dividend declarations. Therefore, as much of the surplus as possible must be allocated to the common stock.
2. The preferred stock usually can be called only on dividend dates.
3. Since the stock is participating, surplus must be allocated on a final liquidation basis, the common stockholders choosing the date of liquidation.

The effect of these conditions can be seen in the following example: Allocate $9,000 surplus, if a subsidiary has $25,000 common stock and $25,000 preferred stock, when the preferred stock is 6 per cent cumulative, fully participating after the common stock receives 10 per cent in any one year, and when all cumulative dividends up to now have been paid.

The proration apparently would be $3,500 to the preferred and $5,500 to the common because the common stockholders can secure that much as follows:

First Year	Common Stock		Preferred Stock	
Regular Dividend	$2,500	.....	$1,500	.....
Participating Dividend	nil	$2,500	nil	$1,500
Second Year				
Regular Dividend	$2,500	.....	$1,500	.....
Participating Dividend	500	3,000	500	2,000
Total		$5,500		$3,500

A participating dividend the first year would not be to the interest of the common stockholders because they then would receive $5,000 instead of the $5,500 calculated above.

First Year	Common Stock	Preferred Stock
Regular Dividend	$2,500	$1,500
Participating Dividend	2,500	2,500
Total	$5,000	$4,000

To wait three years would be to the advantage of the pre-

ferred stock as the cumulative dividend would take all the surplus left after the second year.

First Year	Common Stock		Preferred Stock	
Regular Dividend	$2,500	.....	$1,500	.....
Participating Dividend	nil	$2,500	nil	$1,500
Second Year				
Regular Dividend	$2,500	.....	$1,500	.....
Participating Dividend	nil	2,500	nil	1,500
Third Year				
Regular Dividend	nil	.....	$1,000 (a)	.....
Participating Dividend	nil	nil	nil	1,000
Total		$5,000		$4,000

(a) The preferred stock would get the balance of surplus only.

As the first proration gives the largest possible sum to the common stockholders, it is believed to be the correct allocation. The present author realizes the weakness of allocating surplus between the classes of stock on a liquidating basis. It seems, however, fallacious to assign all the surplus to the common stockholders simply because the preferred stockholders cannot force the declaration of a participating dividend. Why say the common stockholders own more surplus than they can receive if the past rate of operating profits is maintained?

Case A

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	Common Stock	$100,000	$25,000
Goodwill	10,000	5,000	Preferred Stock	.....	25,000
			Surplus	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets, Company X bought on the open market 200 shares of Company Y's common stock at 125, and 100 shares of Company Y's preferred (6 per cent cumulative, fully participating after common stock has received 10 per cent in any one year) stock at 150. If the only dividend declared and paid by either company since January 1, 1923, was an $8,000 cash dividend by Company Y on December 31, 1925, and if each company made an operat-

ing profit of $10,000 during 1925, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 74,400	$52,000	.....	.....	$126,400
Y's Common Stock	25,000	.....	.....	$25,000	.....
Y's Preferred Stock (a)	13,800	.....	.....	13,800	.....
Goodwill	10,000	5,000	$ 7,200	.....	22,200
	$123,200	$57,000			$148,600
Common Stock:					
Inside	$100,000	$20,000	20,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Preferred Stock:					
Inside	.....	10,000	10,000	.....	.....
Outside	.....	15,000	.....	.....	15,000
Surplus Applicable to Common Stock:					
Inside (b)	23,200	3,200	1,600	.....	24,800
Outside	.....	800	.....	.....	800
Preferred Stock:					
Inside (c)	.....	1,200	.....	.....	1,200
Outside	.....	1,800	.....	.....	1,800
	$123,200	$57,000			$148,600

(a) $\$15,000 - (2 \times .06 \times \$10,000) = \$13,800$

(b) The $1,600 belongs entirely to the common. The $1,200 bought with preferred was received as dividends.

(c) The entries affecting Company Y's accounts during 1925 were:

	Starting Balances	Adjustments Dr.	Adjustments Cr.	Final Balances
Other Assets	$50,000	$10,000 (d)	$8,000 (e)	$52,000
Surplus Applicable to Common Stock:				
Inside	1,600	2,400 (e)	4,000 (d)	3,200
Outside	400	600 (e)	1,000 (d)	800
Preferred Stock:				
Inside	1,200	2,000 (e)	2,000 (d)	1,200
Outside	1,800	3,000 (e)	3,000 (d)	1,800

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 74,400	$52,000	.....	.....	$126,400
Y's Common Stock (a)	26,600	.....	.....	$26,600	.....
Y's Preferred Stock (b)	15,000	.....	.....	15,000	.....
Goodwill	10,000	5,000	$ 7,200	.....	22,200
	$126,000	$57,000			$148,600

	Co. X	Co. Y	Eliminations		C. B. S.
Common Stock:					
Inside	$100,000	$20,000	$20,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Preferred Stock:					
Inside	.....	10,000	10,000	.....	.....
Outside	.....	15,000	.....	.....	15,000
Surplus Applicable to Common Stock:					
Inside	26,000	3,200	3,200	.....	26,000
Outside	.....	800	.....	.....	800
Preferred Stock:					
Inside	.....	1,200	1,200	.....	.....
Outside	.....	1,800	.....	.....	1,800
	$126,000	$57,000			$148,600

(a) $25,000 + $4,000 − $2,400 = $26,600
(b) $15,000 + $2,000 − $2,000 = $15,000

Both of the above solutions allocate the surplus $26,000 to the majority and $2,600 to the minority interests. Under the Cost Value Method, cumulative dividends passed at date of acquisition are regarded as a return of investment when received out of surplus at date of acquisition.

Case B

Same as Case A if no dividends had been paid and if each company had suffered an operating loss of $8,000 during 1925.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 52,000	$42,000	.....	.....	$ 94,000
Y's Common Stock	25,000	.....	.....	$25,000	.....
Y's Preferred Stock	15,000	.....	.....	15,000	.....
Goodwill	10,000	5,000	$ 7,200	.....	22,200
	$102,000	$47,000			$116,200
Common Stock:					
Inside	$100,000	$20,000	20,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Preferred Stock:					
Inside	.....	10,000	10,000	.....	.....
Outside	.....	15,000	.....	.....	15,000
Surplus Applicable to Common Stock:					
Inside (a)	2,000	*2,400	1,600	.....	*2,000
Outside (a)	.....	*600	.....	.....	*600
Preferred Stock:					
Inside (a)	.....	.....	1,200	.....	*1,200
Outside	.....	.....	.....	.....	.....
	$102,000	$47,000			$116,200

* Denotes deficit.

(a) The entries affecting Company Y's accounts during 1925 were:

	Starting Balances	Adjustments Dr.	Adjustments Cr.	Final Balances
Other Assets	$50,000	.....	$8,000	$42,000
Surplus Applicable to Common Stock:				
Inside	1,600	$4,000	.....	*2,400
Outside	400	1,000	.....	*600
Preferred Stock:				
Inside	1,200	1,200	.....	.....
Outside	1,800	1,800	.....	.....

* Denotes deficit.

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 52,000	$42,000	.....	.....	$ 94,000
Y's Common Stock (a)	21,000	.....	.....	$21,000	.....
Y's Preferred Stock (b)	13,800	.....	.....	13,800	.....
Goodwill	10,000	5,000	$ 7,200	.....	22,200
	$ 96,800	$47,000			$116,200
Common Stock:					
Inside	$100,000	$20,000	20,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Preferred Stock:					
Inside	.....	10,000	10,000	.....	.....
Outside	.....	15,000	.....	.....	15,000
Surplus Applicable to Common Stock:					
Inside	*3,200	*2,400	.....	2,400	*3,200
Outside	.....	*600	.....	.....	*600
Preferred Stock:					
Inside	.....	.....	.....	.....	.....
Outside	.....	.....	.....	.....	.....
	$ 96,800	$47,000			$116,200

* Denotes deficit.

(a) $25,000 − $4,000 (see debit adjustment in footnote (a) under Cost Value Method).

(b) $15,000 − $1,200 (see debit adjustment in footnote (a) under Actual Value Method).

Both of the above solutions allocate the deficit $3,200 to the majority interests and $600 to the minority interests. In the formal consolidated balance sheet, all the deficits must be allocated to the common stock as is done in the working papers under the Actual Value Method.

A comparison of Case A and Case B shows that the declaration of preferred dividends and current profits and losses do not affect the goodwill element. This is sound theory as the

goodwill purchased at acquisition can not be affected by anything after acquisition except a sale of part of the holding company's investment.

Case C

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$40,000	Common Stock	$100,000	$25,000
Goodwill	10,000	5,000	Preferred Stock	.....	25,000
			Surplus	10,000	*5,000
	$110,000	$45,000		$110,000	$45,000

* Denotes deficit.

On January 1, 1925, the date of the above balance sheets, Company X bought on the open market 200 shares of Company Y's common stock at 125, and 100 shares of Company Y's preferred (6 per cent cumulative, fully participating after common stock has received 10 per cent in any one year) stock at 150. If each company made an operating profit of $10,000 during 1925, and if neither company has declared any dividends since January 1, 1923, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$50,000	.....	.....	$120,000
Y's Common Stock	25,000	.....	.....	$25,000	.....
Y's Preferred Stock	15,000	.....	.....	15,000	.....
Goodwill	10,000	5,000	$14,000	.....	29,000
	$120,000	$55,000			$149,000
Common Stock:					
Inside	$100,000	$20,000	20,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Preferred Stock:					
Inside	.....	10,000	10,000	.....	.....
Outside	.....	15,000	.....	.....	15,000
Surplus Applicable to Common Stock:					
Inside (a)	20,000	400	.....	4,000	24,400
Outside (a)	.....	100	.....	.....	100
Preferred Stock:					
Inside (a)	.....	1,800	.....	.....	1,800
Outside (a)	.....	2,700	.....	.....	2,700
	$120,000	$55,000			$149,000

(a) The entries affecting Company Y's accounts during 1925 were:

	Starting Balances	Adjustments Dr.	Adjustments Cr.	Final Balances
Other Assets	$40,000	$10,000	.....	$50,000
Surplus Applicable to Common Stock:				
Inside	*4,000	.....	$4,400	400
Outside	*1,000	.....	1,100	100
Preferred Stock:				
Inside	.....	.....	1,800	1,800
Outside	.....	.....	2,700	2,700

* Denotes deficit.

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$50,000	.....	.....	$120,000
Y's Common Stock (a)	29,400	.....	.....	$29,400	.....
Y's Preferred Stock (b)	16,800	.....	.....	16,800	.....
Goodwill	10,000	5,000	$14,000	.....	29,000
	$126,200	$55,000			$149,000
Common Stock:					
Inside	$100,000	$20,000	20,000	.....	$100,000
Outside	.....	5,000	.....	.....	5,000
Preferred Stock:					
Inside	.....	10,000	10,000	.....	.....
Outside	.....	15,000	.....	.....	15,000
Surplus Applicable to Common Stock:					
Inside	26,200	400	400	.....	26,200
Outside	.....	100	.....	.....	100
Preferred Stock:					
Inside	.....	1,800	1,800	.....	.....
Outside	.....	2,700	.....	.....	2,700
	$126,200	$55,000			$149,000

(a) $25,000 + $4,400 [see credit adjustment in footnote (a) under Cost Value Method].
(b) $15,000 + $1,800 [see credit adjustment in footnote (a) under Cost Value Method].

Both of the above solutions allocate the surplus $26,200 to the majority and $2,800 to the minority interests. Cumulative dividends passed at date of acquisition when there is a deficit at that date should not be regarded as deductions from the purchase price of the stock but rather a potential increase in the earning power of the stock. The reason for this treatment is that the mere right to future profits is not an asset now.

CHAPTER XI

MIXED SON AND GRANDSON RELATIONSHIPS

When the stock of a subsidiary is owned partly by the major holding company and partly by another company which is controlled by the major holding company, the intercompany relationship is a combination of a son and a grandson relationship. As, in the main, the rules for grandson relationships apply, it is important to prepare a Family Tree as no more distantly related companies than father and son may be consolidated in the same step. To do so would misstate the son's minority interest which is entitled to its share of the grandson's profits and would misstate the consolidated goodwill, if the son acquired positive goodwill from the grandson and the negative goodwill in the elimination of the son's stock on the major holding company's books exceeds the positive goodwill on the son's individual balance sheet.

Rule XXV

Analyze and eliminate the intercompany stock investments under mixed son and grandson relationships according to Rule V for the Cost Value Method and Rule VI for the Actual Value Method except that

(a) stock representing father and son relationships must be eliminated before stock representing grandfather and grandson relationships,

(b) the Goodwill element must be included in the analysis of the carrying value of all the stock investments included in the control through which the group is affiliated, and

(c) under the Actual Value Method only, the carry-

ing value of all the stock investments included in the control through which the group is affiliated must reflect the current profits, losses and dividends of the owned companies.

While goodwill does not ordinarily vest in purchase of less than a controlling interest in a company, goodwill must be allowed with minority holdings if these holdings constitute part of the control of the major holding company. Assume that Company X owns Company Y 100 per cent. If it is decided to buy at 125 all the stock of Company Z, when the latter's capital stock is $40,000 and surplus $6,000, should it make any difference if (a) Company X took all the stock, or (b) Company Y took all the stock, or (c) Company X took 75 per cent of the stock and Company Y 25 per cent, or (d) Company X took 20 per cent of the stock and Company Y 80 per cent? Since the obvious answer is no, the analyses of the investments, under the Cost Value Method, are as follows:

PREMISE (a):

	Co. X's Investment	Co. Y's Investment	Total Investment
Par	$40,000	.....	$40,000
Surplus	6,000	nil	6,000
Goodwill	4,000	.....	4,000
	$50,000		$50,000

PREMISE (b):

	Co. X's Investment	Co. Y's Investment	Total Investment
Par	.....	$40,000	$40,000
Surplus	nil	6,000	6,000
Goodwill	.....	4,000	4,000
		$50,000	$50,000

PREMISE (c):

	Co. X's Investment	Co. Y's Investment	Total Investment
Par	$30,000	$10,000	$40,000
Surplus	4,500	1,500	6,000
Goodwill	3,000	1,000	4,000
	$37,500	$12,500	$50,000

PREMISE (d):

	Co. X's Investment	Co. Y's Investment	Total Investment
Par	$ 8,000	$32,000	$40,000
Surplus	1,200	4,800	6,000
Goodwill	800	3,200	4,000
	$10,000	$40,000	$50,000

The same logic back of clause (b) of Rule XXV is the reason for clause (c).

Cases.—The chief underlying variations regarding mixed son and grandson relationships are:

A. When grandparent directly controls both son and grandson.
   (a) When grandparent invests in grandson before son does.
   (b) When grandparent invests in grandson after son does.

B. When grandparent does not directly control grandson.
   (a) When only one son is involved.
      1. When grandparent invests in grandson before son does.
      2. When grandparent invests in grandson after son does.
   (b) When more than one son is involved.
      1. When grandparent does not invest in grandson.
      2. When grandparent does invest in grandson.

CASE AA

	Co. X	Co. Y	Co. Z		Co. X	Co. Y	Co. Z
Other Assets	$100,000	$50,000	$40,000	Capital Stock	$100,000	$50,000	$40,000
Goodwill	10,000	5,000	4,000	Surplus	10,000	5,000	4,000
	$110,000	$55,000	$44,000		$110,000	$55,000	$44,000

On January 1, 1924, the date of the above balance sheets, Company X bought on the open market 400 shares of Company Y's stock at 125, and 300 shares of Company Z's stock at 130. On January 1, 1925, Company Y bought on the open market 80

shares of Company Z's stock at 150. If each company made an operating profit of $10,000 during each of the years in question, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

The family tree, under the Cost Value Method, is shown by Fig. 13.

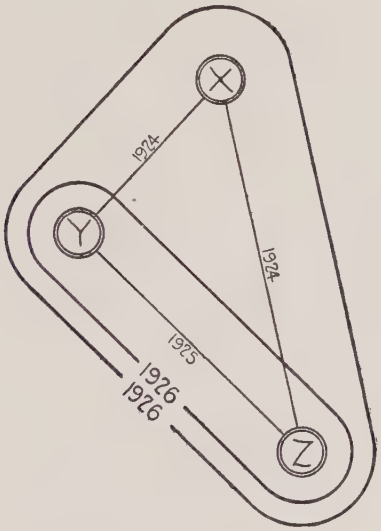

Fig. 13

	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$ 58,000	$60,000	.....	.....	$118,000
Z's Stock	12,000	.....	.....	$12,000	.....
Goodwill	5,000	4,000	$ 1,200	.....	10,200
	$ 75,000	$64,000			$128,200
Capital Stock:					
Inside	$ 50,000	$ 8,000	8,000	.....	$ 50,000
Outside	.....	32,000	.....	.....	32,000
Surplus:					
Inside (a)	25,000	4,800	2,800	.....	27,000
Outside	.....	19,200	.....	.....	19,200
	$ 75,000	$64,000			$128,200

(a) $8/40 \times (\$4,000 + \$10,000) = \$2,800$

	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 31,000	$118,000	.....	.....	$149,000
Y's Stock	50,000	.....	.....	$50,000	.....
Z's Stock	39,000	.....	.....	39,000	.....
Goodwill	10,000	10,200	$12,000	.....	32,200
	$130,000	$128,200			$181,200
X's Stock:					
Inside	$100,000	.....	.....	.....	$100,000
Y's Stock:					
Inside	.....	$ 40,000	40,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
Z's Stock:					
Inside	.....	30,000	30,000	.....	.....
Outside	.....	2,000	.....	.....	2,000
X's Surplus:					
Inside	30,000	.....	.....	.....	30,000
Y's Surplus:					
Inside (a)	.....	21,600	4,000	.....	17,600
Outside	.....	5,400	.....	.....	5,400
Z's Surplus:					
Inside (b)	.....	18,000	3,000	.....	15,000
Outside	.....	1,200	1,200	.....	1,200
	$130,000	$128,200			$181,200

(a) $4/5 \times \$5,000 = \$4,000$
(b) $3/4 \times \$4,000 = \$3,000$

Solution—Actual Value Method

The family tree is the same under both the Cost Value and Actual Value Methods (Fig. 13).

	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$58,000	$60,000	.....	.....	$118,000
Z's Stock (a)	14,000	.....	.....	$14,000	.....
Goodwill	5,000	4,000	$1,200	.....	10,200
	$77,000	$64,000			$128,200
Capital Stock:					
Inside	$50,000	$ 8,000	8,000	.....	$ 50,000
Outside	.....	32,000	.....	.....	32,000
Surplus:					
Inside	27,000	4,800	4,800	.....	27,000
Outside	.....	19,200	.....	.....	19,200
	$77,000	$64,000			$128,200

(a) $\$12,000 + (8/40 \times \$10,000) = \$14,000$

	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 31,000	$118,000	.....	.....	$149,000
Y's Stock (a)	67,600	.....	.....	$67,600	.....
Z's Stock (b)	54,000	.....	.....	54,000	.....
Goodwill	10,000	10,200	$12,000	.....	32,200
	$162,600	$128,200			$181,200
X's Stock:					
Inside	$100,000	.....	.....	.....	$100,000
Y's Stock:					
Inside	.....	$ 40,000	40,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
Z's Stock:					
Inside	.....	30,000	30,000	.....	.....
Outside	.....	2,000	.....	.....	2,000
X's Surplus:					
Inside	62,600	.....	.....	.....	62,600
Y's Surplus:					
Inside	.....	21,600	21,600	.....	.....
Outside	.....	5,400	.....	.....	5,400
Z's Surplus:					
Inside	.....	18,000	18,000	.....	.....
Outside	.....	1,200	.....	.....	1,200
	$162,600	$128,200			$181,200

(a) $\$50,000 + (4/5 \times \$10,000) + \{4/5 \times [\$10,000 + (8/40 \times \$10,000)]\} = \$67,600$
(b) $\$39,000 + [3/4 \times (\$10,000 + \$10,000)] = \$54,000$

Both of the above solutions allocate the surplus $62,600 to the majority and $6,600 to the minority interests. The effect of consolidating the companies in the steps may be seen from the fact that the minority interest's share of Company Y's surplus would have been $\$5,000\ [1/5 \times (\$5,000 + \$5,000)]$ instead of $5,400, if the consolidated balance sheets had been incorrectly made in one step.

Case Ab

	Co. X	Co. Y	Co. Z		Co. X	Co. Y	Co. Z
Other Assets	$100,000	$50,000	$40,000	Capital Stock	$100,000	$50,000	$40,000
Goodwill	10,000	5,000	4,000	Surplus	10,000	5,000	4,000
	$110,000	$55,000	$44,000		$110,000	$55,000	$44,000

On January 1, 1924, the date of the above balance sheets, Company Y bought 80 shares of Company Z's stock on the open market at 150. On January 1, 1925, Company X bought on the open market 400 shares of Company Y's stock at 125, and

300 shares of Company Z's stock at 130. If each company made an operating profit of $10,000 during each of the years in question, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

The family tree, under the Cost Value Method, is shown in Fig. 14.

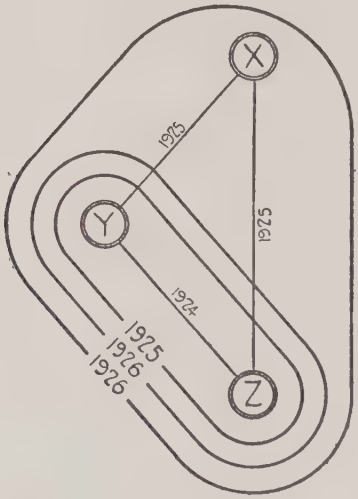

Fig. 14

Jan. 1, 1925	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$48,000	$50,000	.....	.....	$ 98,000
Z's Stock	12,000	.....	.....	$12,000	.....
Goodwill	5,000	4,000	$3,200	.....	$12,200
	$65,000	$54,000			$110,200
Capital Stock:					
Inside	$50,000	$ 8,000	8,000	.....	$ 50,000
Outside	.....	32,000	.....	.....	32,000
Surplus:					
Inside (a)	15,000	2,800	800	.....	17,000
Outside	.....	11,200	.....	.....	11,200
	$65,000	$54,000			$110,200

(a) $8/40 \times \$4,000 = \$800$

Jan. 1, 1926	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$58,000	$60,000	.....	.....	$118,000
Z's Stock	12,000	.....	.....	$12,000	.....
Goodwill	5,000	4,000	$3,200	.....	12,200
	$75,000	$64,000			$130,200
Capital Stock:					
Inside	$50,000	$ 8,000	8,000	.....	$ 50,000
Outside	.....	32,000	.....	.....	32,000
Surplus:					
Inside (a)	25,000	4,800	800	.....	29,000
Outside	.....	19,200	.....	.....	19,200
	$75,000	$64,000			$130,200

(a) $8/40 \times \$4,000 = \$800$

Jan. 1, 1926	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 31,000	$118,000	.....	.....	$149,000
Y's Stock	50,000	.....	.....	$50,000	.....
Z's Stock	39,000	.....	.....	39,000	.....
Goodwill	10,000	12,200	.....	5,100	17,100
	$130,000	$130,200			$166,100
X's Stock:					
Inside	$100,000	.....	.....	.....	$100,000
Y's Stock:					
Inside	.....	$ 40,000	$40,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
Z's Stock:					
Inside	.....	30,000	30,000	.....	.....
Outside	.....	2,000	.....	.....	2,000
X's Surplus:					
Inside	30,000	.....	.....	.....	30,000
Y's Surplus:					
Inside (a)	.....	23,200	13,600	.....	9,600
Outside	.....	5,800	.....	.....	5,800
Z's Surplus:					
Inside (b)	.....	18,000	10,500	.....	7,500
Outside	.....	1,200	.....	.....	1,200
	$130,000	$130,200			$166,100

(a) $4/5 \times \$17,000 = \$13,600$
(b) $3/4 \times (\$10,000 + \$4,000) = \$10,500$

Solution—Actual Value Method

The family tree, under the Actual Value Method, is shown by Fig. 15.

Jan. 1, 1926	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$58,000	$60,000	.....	.....	$118,000
Z's Stock (a)	16,000	.....	.....	$16,000	.....
Goodwill	5,000	4,000	$3,200	.....	12,200
	$79,000	$64,000			$130,200
Capital Stock:					
Inside	$50,000	$ 8,000	8,000	.....	$ 50,000
Outside	.....	32,000	.....	.....	32,000
Surplus:					
Inside	29,000	4,800	4,800	.....	29,000
Outside	.....	19,200	.....	.....	19,200
	$79,000	$64,000			$130,200

(a) $\$12,000 + [8/40 \times (\$10,000 + \$10,000)] = \$16,000$

Jan. 1, 1926	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 31,000	$118,000	.....	.....	$149,000
Y's Stock (a)	59,600	.....	.....	$59,600	.....
Z's Stock (b)	46,500	.....	.....	46,500	.....
Goodwill	10,000	12,200	.....	5,100	17,100
	$147,100	$130,200			$166,100
X's Stock:					
Inside	$100,000	.....	.....	.....	$100,000
Y's Stock:					
Inside	.....	$ 40,000	$40,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
Z's Stock:					
Inside	.....	30,000	30,000	.....	.....
Outside	.....	2,000	.....	.....	2,000
X's Surplus:					
Inside	47,100	.....	.....	.....	47,100
Y's Surplus:					
Inside	.....	23,200	23,200	.....	.....
Outside	.....	5,800	.....	.....	5,800
Z's Surplus:					
Inside	.....	18,000	18,000	.....	.....
Outside	.....	1,200	.....	.....	1,200
	$147,100	$130,200			$166,100

(a) $\$50,000 + \{4/5 \times [\$10,000 + (8/40 \times \$10,000)]\} = \$59,600$
(b) $\$39,000 + (3/4 \times \$10,000) = \$46,500$

Both of the solutions allocate the surplus $47,100 to the majority and $7,000 to the minority interests. This case is somewhat similar to Case B in Chapter IV in that the major holding company buys the stock of another company which holds stock of a third company. Since Company Z is affiliated through Company X, the point that Company Y only owns a

minority interest in Company Z must be ignored. In eliminating Company Y's stock on Co. X's books under the Cost Value Method, Company Y's consolidated surplus ($17,000) as of January 1, 1925, must be used in analyzing the carrying value of the stock.

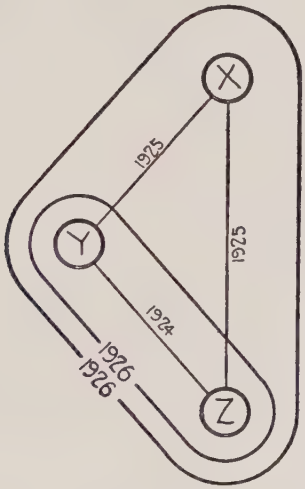

Fig. 15

Case Ba1

	Co. X	Co. Y	Co. Z		Co. X	Co. Y	Co. Z
Other Assets.	$100,000	$50,000	$40,000	Capital Stock.	$100,000	$50,000	$40,000
Goodwill....	10,000	5,000	4,000	Surplus.....	10,000	5,000	4,000
	$110,000	$55,000	$44,000		$110,000	$55,000	$44,000

On January 1, 1924, the date of the above balance sheets, Company X bought on the open market 400 shares of Company Y's stock at 125, and 80 shares of Company Z's stock at 130. On January 1, 1925, Company Y bought on the open market 300 shares of Company Z's stock at 150. If each company made an operating profit of $10,000 during each of the years in question, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

The family tree, under the Cost Value Method, is shown by Fig. 16.

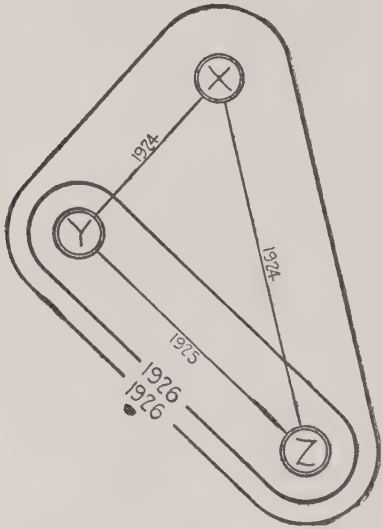

Fig. 16

	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$ 25,000	$60,000	.....	.....	$ 85,000
Z's Stock	45,000	.....	.....	$45,000	.....
Goodwill	5,000	4,000	$ 4,500	.....	13,500
	$ 75,000	$64,000			$ 98,500
Capital Stock:					
Inside	$ 50,000	$30,000	30,000	.....	$ 50,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	25,000	18,000	10,500	.....	32,500
Outside	.....	6,000	.....	.....	6,000
	$ 75,000	$64,000			$ 98,500

(a) $3/4 \times (\$4,000 + \$10,000) = \$10,500$

	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 59,600	$85,000	.....	.....	$144,600
Y's Stock	50,000	.....	.....	$50,000	.....
Z's Stock	10,400	.....	.....	10,400	.....
Goodwill	10,000	13,500	$ 7,600	.....	31,100
	$130,000	$98,500			$175,700

	Co. X	Co. Y + Z	Eliminations		C.B.S.
X's Stock:					
Inside	$100,000	.....	.....	.....	$100,000
Y's Stock:					
Inside	.....	$40,000	$40,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
Z's Stock:					
Inside	.....	8,000	8,000	.....	.....
Outside	.....	2,000	.....	.....	2,000
X's Surplus:					
Inside	30,000	.....	.....	.....	30,000
Y's Surplus:					
Inside (a)	.....	26,000	4,000	.....	22,000
Outside	.....	6,500	.....	.....	6,500
Z's Surplus:					
Inside (b)	.....	4,800	800	.....	4,000
Outside	.....	1,200	.....	.....	1,200
	$130,000	$98,500			$175,700

(a) $4/5 \times \$5,000 = \$4,000$
(b) $8/40 \times \$4,000 = \$800$

Solution—Actual Value Method

The family tree is the same under both the Cost Value and Actual Value Methods (Fig. 16).

	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$ 25,000	$60,000	.....	.....	$ 85,000
Z's Stock (a)	52,500	.....	.....	$52,500	.....
Goodwill	5,000	4,000	$ 4,500	.....	13,500
	$ 82,500	$64,000			$ 98,500
Capital Stock:					
Inside	$ 50,000	$30,000	30,000	.....	$ 50,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	32,500	18,000	18,000	.....	32,500
Outside	.....	6,000	.....	.....	6,000
	$ 82,500	$64,000			$ 98,500

(a) $\$45,000 + (3/4 \times \$10,000) = \$52,500$

	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 59,600	$85,000	.....	.....	$144,600
Y's Stock (a)	72,000	.....	.....	$72,000	.....
Z's Stock (b)	14,400	.....	.....	14,400	.....
Goodwill	10,000	13,500	$ 7,600	.....	31,100
	$156,000	$98,500			$175,700

(a) $\$50,000 + (4/5 \times \$10,000) + \{4/5 \times [\$10,000 + (3/4 \times \$10,000)]\} = \$72,000$
(b) $\$10,400 + [8/40 \times (\$10,000 + \$10,000)] = \$14,400$

	Co. X	Co. Y + Z	Eliminations		C. B. S.
X's Stock:					
Inside	$100,000	.....	.....	.....	$100,000
Y's Stock:					
Inside	.....	$40,000	$40,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
Z's Stock:					
Inside	.....	8,000	8,000	.....	.....
Outside	.....	2,000	.....	.....	2,000
X's Surplus:					
Inside	56,000	.....	.....	.....	56,000
Y's Surplus:					
Inside	.....	26,000	26,000	.....	.....
Outside	.....	6,500	.....	.....	6,500
Z's Surplus:					
Inside	.....	4,800	4,800	.....	.....
Outside	.....	1,200	.....	.....	1,200
	$156,000	$98,500			$175,700

Both of the above solutions allocate the surplus $54,000 to the majority and $7,700 to the minority interests. A comparison of Case Aa and Case Ba1 shows that the technique required is the same whether the grandson is controlled by the son or by the grandparent.

Case Ba2

	Co. X	Co. Y	Co. Z		Co. X	Co. Y	Co. Z
Other Assets	$100,000	$50,000	$40,000	Capital Stock	$100,000	$50,000	$40,000
Goodwill	10,000	5,000	4,000	Surplus	10,000	5,000	4,000
	$110,000	$55,000	$44,000		$110,000	$55,000	$44,000

On January 1, 1924, the date of the above balance sheets, Company Y bought on the open market 300 shares of Company Z's stock at 130. On January 1, 1925, Company X bought on the open market 400 shares of Company Y's stock at 130 and 80 shares of Company Z's stock at 150. If each company made an operating profit of $10,000 during each of the years in question, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

The family tree, under the Cost Value Method, is shown by Fig. 17.

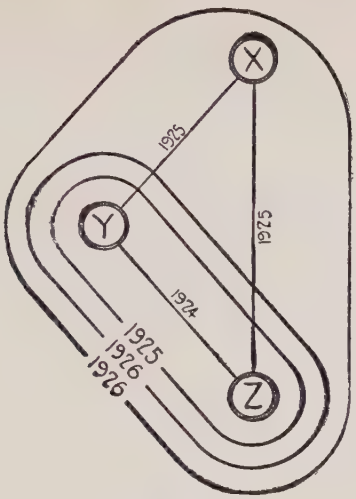

Fig. 17

Jan. 1, 1925	Co. Y	Co. Z	Eliminations		C. B. S
Other Assets	$21,000	$50,000	.....	.....	$71,000
Z's Stock	39,000	.....	.....	$39,000	.....
Goodwill	5,000	4,000	$ 6,000	.....	15,000
	$65,000	$54,000			$86,000
Capital Stock:					
Inside	$50,000	$30,000	30,000	.....	$50,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	15,000	10,500	3,000	.....	22,500
Outside	.....	3,500	.....	.....	3,500
	$65,000	$54,000			$86,000

(a) $3/4 \times \$4,000 = \$3,000$

Jan. 1, 1926	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$31,000	$60,000	.....	.....	$ 91,000
Z's Stock	39,000	.....	.....	$39,000	.....
Goodwill	5,000	4,000	$ 6,000	.....	15,000
	$75,000	$64,000			$106,000
Capital Stock:					
Inside	$50,000	$30,000	30,000	.....	$ 50,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	25,000	18,000	3,000	.....	40,000
Outside	.....	6,000	.....	.....	6,000
	$75,000	$64,000			$106,000

(a) $3/4 \times \$4,000 = \$3,000$

Jan. 1, 1926	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 56,000	$ 91,000	.....	.....	$147,000
Y's Stock	52,000	.....	.....	$52,000	.....
Z's Stock	12,000	.....	.....	12,000	.....
Goodwill	10,000	15,000	.....	4,800	20,200
	$130,000	$106,000			$167,200
X's Stock:					
Inside	$100,000	.....	.....	.....	$100,000
Y's Stock:					
Inside	.....	$ 40,000	$40,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
Z's Stock:					
Inside	.....	8,000	8,000	.....	.....
Outside	.....	2,000	.....	.....	2,000
X's Surplus:					
Inside	30,000	.....	.....	.....	30,000
Y's Surplus:					
Inside (a)	.....	32,000	18,000	.....	14,000
Outside	.....	8,000	.....	.....	8,000
Z's Surplus:					
Inside (b)	.....	4,800	2,800	.....	2,000
Outside	.....	1,200	.....	.....	1,200
	$130,000	$106,000			$167,200

(a) $4/5 \times \$22,500 = \$18,000$ (b) $8/40 \times (\$4,000 + \$10,000) = \$2,800$

Solution—Actual Value Method

The family tree, under the Actual Value Method, is shown by Fig. 18.

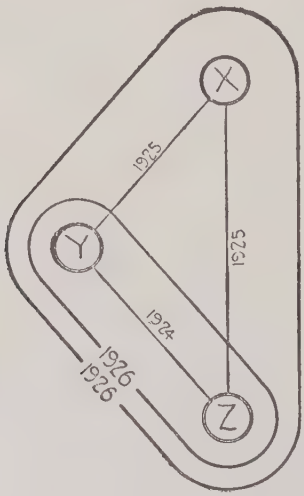

Fig. 18

Jan. 1, 1926	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$31,000	$60,000	.....	.....	$ 91,000
Z's Stock (a)	54,000	.....	.....	$54,000	.....
Goodwill	5,000	4,000	$ 6,000	.....	15,000
	$90,000	$64,000			$106,000
Capital Stock:					
Inside	$50,000	$30,000	30,000	.....	$ 50,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	40,000	18,000	18,000	.....	40,000
Outside	.....	6,000	.....	.....	6,000
	$90,000	$64,000			$106,000

(a) $[3/4 \times (\$10,000 + \$10,000)] + \$39,000 = \$54,000$

Jan. 1, 1926	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 56,000	$ 91,000	.....	.....	$147,000
Y's Stock (a)	66,000	.....	.....	$66,000	.....
Z's Stock (b)	14,000	.....	.....	14,000	.....
Goodwill	10,000	15,000	.....	4,800	20,200
	$146,000	$106,000			$167,200
X's Stock:					
Inside	$100,000	.....	.....	.....	$100,000
Y's Stock:					
Inside	.....	$ 40,000	40,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
Z's Stock:					
Inside	.....	8,000	8,000	.....	.....
Outside	.....	2,000	.....	.....	2,000
X's Surplus:					
Inside	46,000	.....	.....	.....	46,000
Y's Surplus:					
Inside	.....	32,000	32,000	.....	.....
Outside	.....	8,000	.....	.....	8,000
Z's Surplus:					
Inside	.....	4,800	4,800	.....	.....
Outside	.....	1,200	.....	.....	1,200
	$146,000	$106,000			$167,200

(a) $\$52,000 + \{4/5 \times [\$10,000 + (3/4 \times \$10,000)]\} = \$66,000$
(b) $\$12,000 + (8/40 \times \$10,000) = \$14,000$

Both of the above solutions allocate the surplus $46,000 to the majority and $9,200 to the minority interests. This case is practically the same as Case B in Chapter IV as the major holding company bought into a minor holding company. A comparison of Case Ab and Case Ba2 shows that the technique required is the same whether the grandson is controlled by the son or the grandparent.

Case Bb1

	Co. X	Co. Y	Co. Z		Co. X	Co. Y	Co. Z
Other Assets.	$100,000	$50,000	$40,000	Capital Stock.	$100,000	$50,000	$40,000
Goodwill....	10,000	5,000	4,000	Surplus.....	10,000	5,000	4,000
	$110,000	$55,000	$44,000		$110,000	$55,000	$44,000

On January 1, 1924, the date of the above balance sheets, Company X bought on the open market 400 shares of Company Y's stock at 125 and 300 shares of Company Z's stock at 130. On January 1, 1925 Company A was organized, the subscription list (all at par) being Company Y 200 shares, Company Z 50 shares, and J. J. Manning, an outsider, 50 shares. If each company has had an annual operating profit of $12,000 since organization, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

The family tree, under the Cost Value Method, is shown by Fig. 19.

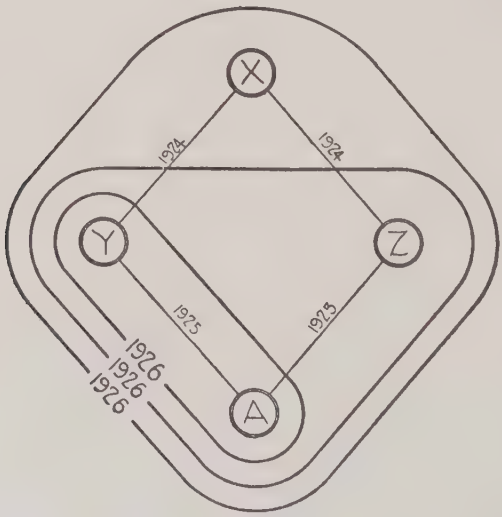

Fig. 19

	Co. Z	Co. A	Eliminations		C. B. S.
Other Assets	$59,000	$42,000	.....	.....	$101,000
A's Stock	5,000	.....	.....	$5,000	.....
Goodwill	4,000	.....	.....	.....	4,000
	$68,000	$42,000			$105,000
Capital Stock:					
Inside	$40,000	$ 5,000	$5,000	.....	$ 40,000
Outside	.....	25,000	.....	.....	25,000
Surplus:					
Inside	28,000	2,000	.....	.....	30,000
Outside	.....	10,000	.....	.....	10,000
	$68,000	$42,000			$105,000

	Co. Y	Co. Z + A	Eliminations		C. B. S.
Other Assets	$54,000	$101,000	.....	.....	$155,000
A's Stock	20,000	.....	.....	$20,000	.....
Goodwill	5,000	4,000	.....	.....	9,000
	$79,000	$105,000			$164,000
Y's Stock:					
Inside	$50,000	.....	.....	.....	$ 50,000
Z's Stock:					
Outside	.....	$ 40,000	.....	.....	40,000
A's Stock:					
Inside	.....	20,000	$20,000	.....	.....
Outside	.....	5,000	.....	.....	5,000
Y's Surplus:					
Inside	29,000	.....	.....	8,000 (a)	37,000
Z's Surplus:					
Outside	.....	30,000	.....	.....	30,000
A's Surplus:					
Inside (a)	.....	8,000	8,000 (a)	.....	.....
Outside	.....	2,000	.....	.....	2,000
	$79,000	$105,000			$164,000

(a) A's Surplus—Inside belongs to Company Y.

	Co. X	Co. Y + Z + A	Eliminations		C. B. S.
Other Assets	$ 35,000	$155,000	.....	.....	$190,000
Y's Stock	50,000	.....	.....	$50,000	.....
Z's Stock	39,000	.....	.....	39,000	.....
Goodwill	10,000	9,000	$12,000	.....	31,000
	$134,000	$164,000			$221,000

	Co. X	Co. Y +Z+A	Eliminations		C.B.S.
X's Stock:					
Inside	$100,000	.....	.....	.....	$100,000
Y's Stock:					
Inside	.....	$ 40,000	$40,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
Z's Stock:					
Inside	.....	30,000	30,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
A's Stock:					
Outside	.....	5,000	.....	.....	5,000
X's Surplus:					
Inside	34,000	.....	.....	.....	34,000
Y's Surplus:					
Inside (a)	.....	29,600	4,000	.....	25,600
Outside	.....	7,400	.....	.....	7,400
Z's Surplus:					
Inside (b)	.....	22,500	3,000	.....	19,500
Outside	.....	7,500	.....	.....	7,500
A's Surplus:					
Outside	.....	2,000	.....	.....	2,000
	$134,000	$164,000			$221,000

(a) $4/5 \times \$5,000 = \$4,000$
(b) $3/4 \times \$4,000 = \$3,000$

Solution—Actual Value Method

The family tree is the same under both the Cost Value and Actual Value Methods (Fig. 19).

	Co. Z	Co. A	Eliminations		C. B. S.
Other Assets	$59,000	$42,000	.....	.....	$101,000
A's Stock (a)	7,000	.....	.....	$7,000	.....
Goodwill	4,000	.....	.....	.....	4,000
	$70,000	$42,000			$105,000
Capital Stock:					
Inside	$40,000	$ 5,000	$5,000	.....	$40,000
Outside	.....	25,000	.....	.....	25,000
Surplus:					
Inside	30,000	2,000	2,000	.....	30,000
Outside	.....	10,000	.....	.....	10,000
	$70,000	$42,000			$105,000

(a) $\$5,000 + (5/30 \times \$12,000) = \$7,000$

	Co. Y	Co. Z +A	Eliminations		C. B. S.
Other Assets	$54,000	$101,000	.....	.....	$155,000
A's Stock (a)	28,000	.....	.....	$28,000	.....
Goodwill	5,000	4,000	.....	.....	9,000
	$87,000	$105,000			$164,000

(a) $\$20,000 + (2/3 \times \$12,000) = \$28,000$

	Co. Y	Co. Z + A	Eliminations		C.B.S.
Y's Stock:					
Inside	$50,000	.....	.....	.....	$ 50,000
Z's Stock:					
Outside	.....	$ 40,000	.....	.....	40,000
A's Stock:					
Inside	.....	20,000	$20,000	.....	.....
Outside	.....	5,000	.....	.....	5,000
Y's Surplus:					
Inside	37,000	.....	.....	.....	37,000
Z's Surplus:					
Outside	.....	30,000	.....	.....	30,000
A's Surplus:					
Inside	.....	8,000	8,000	.....	.....
Outside	.....	2,000	.....	.....	2,000
	$87,000	$105,000			$164,000

	Co. X	Co. Y + Z + A	Eliminations		C. B. S.
Other Assets	$ 35,000	$155,000	.....	.....	$190,000
Y's Stock (a)	75,600	.....	.....	$75,600	.....
Z's Stock (b)	58,500	.....	.....	58,500	.....
Goodwill	10,000	9,000	$12,000	.....	31,000
	$179,100	$164,000			$221,000
X's Stock:					
Inside	$100,000	.....	.....	.....	$100,000
Y's Stock:					
Inside	.....	$ 40,000	40,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
Z's Stock:					
Inside	.....	30,000	30,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
A's Stock:					
Outside	.....	5,000	.....	.....	5,000
X's Surplus:					
Inside	79,100	.....	.....	.....	79,100
Y's Surplus:					
Inside	.....	29,600	29,600	.....	.....
Outside	.....	7,400	.....	.....	7,400
Z's Surplus:					
Inside	.....	22,500	22,500	.....	.....
Outside	.....	7,500	.....	.....	7,500
A's Surplus:					
Outside	.....	2,000	.....	.....	2,000
	$179,100	$164,000			$221,000

(a) $\$50{,}000 + (4/5 \times \$12{,}000) + \{4/5 \times [\$12{,}000 + (2/3 \times \$12{,}000)]\} = \$75{,}600$
(b) $\$39{,}000 + (3/4 \times \$12{,}000) + \{3/4 \times [\$12{,}000 + (1/6 \times \$12{,}000)]\} = \$58{,}500$

Both of the above solutions allocate the surplus $79,100 to the majority and $16,900 to the minority interests. In this case the result would have been the same if Company Y and Company A were consolidated first, Company Z and Company

Y + A second, and Company X and Company Y + Z + A third.

Case Bb2

	Co. X	Co. Y	Co. Z	Co. A	Co. B	Co. C	Co. D
Other Assets...	$90,000	$60,000	$40,000	$8,500	$7,750	$5,250	$3,300
Goodwill.....	5,000	5,000	4,000	500	250	250	200
	$95,000	$65,000	$44,000	$9,000	$8,000	$5,500	$3,500
Capital Stock...	$80,000	$50,000	$40,000	$8,000	$6,000	$4,000	$3,000
Surplus.....	15,000	15,000	4,000	1,000	2,000	1,500	500
	$95,000	$65,000	$44,000	$9,000	$8,000	$5,500	$3,500

Make a consolidated balance sheet as of January 1, 1926, if each company made an annual operating profit of 10 per cent of its capital stock during each of the years following January 1, 1922, the date of the above balance sheets, and if the intercompany purchases of stock, all on the open market, were:

Date	Purchaser	Shares Purchased	Price
January 1, 1922	Co. A	21 Co. D	125
January 1, 1922	Co. B	3 Co. D	125
January 1, 1923	Co. Y	64 Co. A	150
January 1, 1923	Co. Z	48 Co. B	150
January 1, 1924	Co. X	400 Co. Y	160
January 1, 1924	Co. X	320 Co. Z	150
January 1, 1924	Co. X	8 Co. A	150
January 1, 1924	Co. X	6 Co. B	170
January 1, 1924	Co. X	3 Co. D	140
January 1, 1925	Co. Z	32 Co. C	170

Solution—Cost Value Method

As there are numerous purchases into the stock of minor holding companies, it is well to break up the family tree, Figs. 20, 21, 22, under the Cost Value Method into three sections to show the consolidated balance sheets needed as of January 1, 1923, January 1, 1924, and January 1, 1926.

Jan. 1, 1923	Co. A	Co. D.	Eliminations		C. B. S.
Other Assets.....	$6,675	$3,600	.....	.....	$10,275
D's Stock.....	2,625	.....	.....	$2,625	.....
Goodwill.....	500	200	$ 175	.....	875
	$9,800	$3,800			$11,150

Jan 1, 1923	Co. A	Co. D.	Eliminations		C. B. S.
Capital Stock:					
Inside	$8,000	$2,100	$2,100	.....	$ 8,000
Outside	.....	900	.....	.....	900
Surplus:					
Inside (a)	1,800	560	350	.....	2,010
Outside	.....	240	.....	.....	240
	$9,800	$3,800			$11,150

(a) $21/30 \times \$500 = \$350$

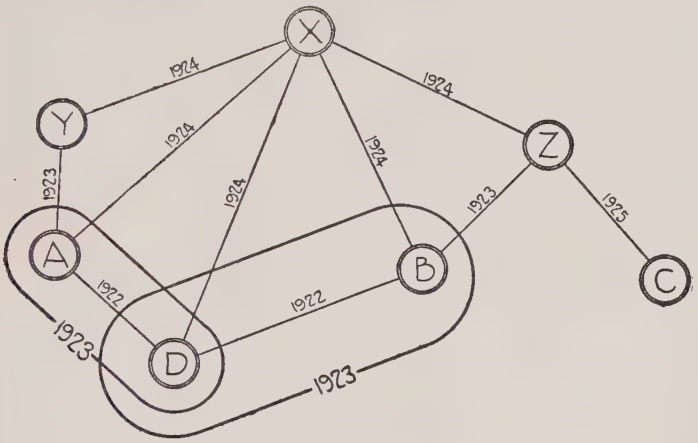

Fig. 20

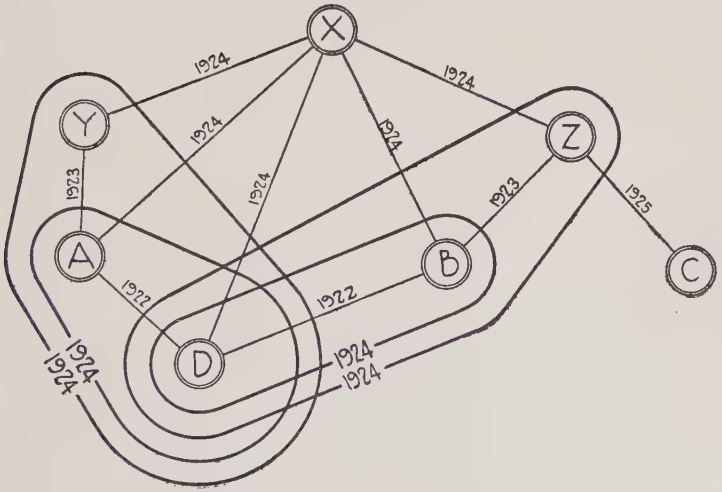

Fig. 21

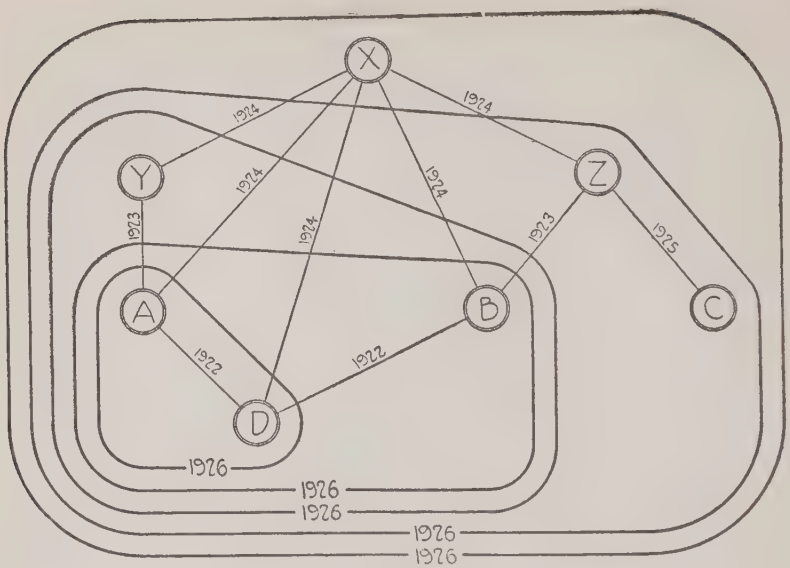

Fig. 22

The consolidated balance sheet of Company A and Company D as of January 1, 1923, is necessary because Company Y bought into Company A's consolidated surplus ($2,010) on that date.

Jan. 1, 1923	Co. B	Co. D	Eliminations		C. B. S.
Other Assets	$7,975	$3,600	.....	.....	$11,575
D's Stock	375	.....	.....	$375	.....
Goodwill	250	200	$ 25	.....	475
	$8,600	$3,800			$12,050
Capital Stock:					
Inside	$6,000	$ 300	300	.....	$ 6,000
Outside	.....	2,700	.....	.....	2,700
Surplus:					
Inside (a)	2,600	80	50	.....	2,630
Outside	.....	720	.....	.....	720
	$8,600	$3,800			$12,050

(a) $3/30 \times \$500 = \$50$

The consolidated balance sheet of Company B and Com-

pany D as of January 1, 1923, is necessary because Company Z bought into Company B's consolidated surplus ($2,630) on that date.

Jan. 1, 1924	Co. A	Co. D	Eliminations		C. B. S.
Other Assets	$ 7,475	$3,900	.....	.....	$11,375
D's Stock	2,625	.....	.....	$2,625	.....
Goodwill	500	200	$ 175	.....	875
	$10,600	$4,100			$12,250
Capital Stock:					
Inside	$ 8,000	$2,100	2,100	.....	$ 8,000
Outside	.....	900	.....	.....	900
Surplus:					
Inside (a)	2,600	770	350	.....	3,020
Outside	.....	330	.....	.....	330
	$10,600	$4,100			$12,250

(a) $21/30 \times \$500 = \$350$

The consolidated balance sheet of Company A and Company D as of January 1, 1924, is necessary because Company X bought into Company A's consolidated surplus ($3,020) on that date.

Jan. 1, 1924	Co. Y	Co. A + D	Eliminations		C. B. S.
Other Assets	$60,400	$11,375	.....	.....	$71,775
A's Stock	9,600	.....	.....	$9,600	.....
Goodwill	5,000	875	$1,592	.....	7,467
	$75,000	$12,250			$79,242
Capital Stock:					
Inside	$50,000	$ 6,400	6,400	.....	$50,000
Outside	.....	1,600	.....	.....	1,600
Surplus:					
Inside (a)	25,000	2,416	1,608	.....	25,808
Outside	.....	604	.....	.....	604
D's Minority	.....	1,230	.....	.....	1,230
	$75,000	$12,250			$79,242

(a) $64/80 \times \$2,010$ (Company A's consolidated surplus, January 1, 1923) = $1,608

The consolidated balance sheet of Company A, Company D and Company Y as of January 1, 1924, is necessary because Company X bought into Company Y's consolidated surplus ($25,808) on that date.

Jan. 1, 1924]	Co. B	Co. D	Eliminations		C. B. S.
Other Assets	$8,575	$3,900	.....	.....	$12,475
D's Stock	375	.....	.....	$375	.....
Goodwill	250	200	$25	.....	475
	$9,200	$4,100			$12,950
Capital Stock:					
Inside	$6,000	$ 300	300	.....	$ 6,000
Outside	.....	2,700	.....	.....	2,700
Surplus:					
Inside (a)	3,200	110	50	.....	3,260
Outside	.....	990	.....	.....	990
	$9,200	$4,100			$12,950

(a) $3/30 \times \$500 = \$50$

The consolidated balance sheet of Company B and Company D as of January 1, 1924, is necessary because Company X bought into Company B's consolidated surplus ($3,260) on that date.

Jan. 1, 1924	Co. Z	Co. B + D	Eliminations		C. B. S.
Other Assets	$40,800	$12,475	.....	.....	$53,275
B's Stock	7,200	.....	.....	$7,200	.....
Goodwill	4,000	475	$ 296	.....	4,771
	$52,000	$12,950			$58,046
Capital Stock:					
Inside	$40,000	$ 4,800	4,800	.....	$40,000
Outside	.....	1,200	.....	.....	1,200
Surplus:					
Inside (a)	12,000	2,608	2,104	.....	12,504
Outside	.....	652	.....	.....	652
D's Minority	.....	3,690	.....	.....	3,690
	$52,000	$12,950			$58,046

(a) $48/60 \times \$2,630$ (Company B's consolidated surplus, January 1, 1923) = $2,104

The consolidated balance sheet of Company Z, Company B and Company D as of January 1, 1924, is necessary because Company X bought into Company Z's consolidated surplus ($12;504) on that date.

Jan. 1, 1926	Co. A	Co. D	Eliminations		C. B. S.
Other Assets	$ 9,075	$4,500	.....	.....	$13,575
D's Stock (a)	2,625	.....	.....	$2,625	.....
Goodwill	500	200	$ 175	.....	875
	$12,200	$4,700			$14,450

(a) $7/10 \times \$500 = \$350$ (surplus to be eliminated)

	Co. A	Co. D	Eliminations		C. B. S.
Capital Stock:					
Inside	$ 8,000	$2,100	$2,100	.....	$ 8,000
Outside	.....	900	.....	.....	900
Surplus:					
Inside	4,200	1,190	350	.....	5,040
Outside	.....	510	.....	.....	510
	$12,200	$4,700			$14,450

Jan. 1, 1926	Co. B	Co. A + D	Eliminations		C. B. S.
Other Assets	$ 9,775	$13,575	....	....	$23,350
D's Stock	375	.....	....	$375	.....
Goodwill	250	875	$ 25	....	1,150
	$10,400	$14,450			$24,500
A's Stock	.....	$ 8,000	....	....	$ 8,000
B's Stock	$ 6,000	.....	....	....	6,000
D's Stock:					
Inside	.....	300	300	....	.....
Outside	.....	600	....	....	600
A's Surplus	.....	5,040	....	....	5,040
B's Surplus	4,400	.....	....	$120 (b)	4,520
D's Surplus:					
Inside	.....	170	50 (a)	....	.....
	.....	.....	120 (b)	....	.....
Outside	.....	340	....	....	340
	$10,400	$14,450			$24,500

(a) $1/10 \times \$500 = \$50$
(b) D's Surplus—Inside belongs to Company B.

Jan. 1, 1926	Co. Y	Co. A + B + D	Eliminations		C. B. S.
Other Assets	$70,400	$23,350	.....	.....	$ 93,750
A's Stock	9,600	.....	.....	$9,600	.....
Goodwill	5,000	1,150	$1,592	.....	7,742
	$85,000	$24,500			$101,492
A's Stock:					
Inside	.....	$ 6,400	6,400	.....	.....
Outside	.....	1,600	.....	.....	$ 1,600
B's Stock	.....	6,000	.....	.....	6,000
D's Stock	.....	600	.....	.....	600
Y's Stock	$50,000	.....	.....	.....	50,000
A's Surplus:					
Inside	.....	4,032	1,608 (a)	.....	.....
	.....	.....	2,424 (b)	.....	.....
Outside	.....	1,008	.....	.....	1,008
B's Surplus	.....	4,520	.....	.....	4,520
D's Surplus	.....	340	.....	.....	340
Y's Surplus	35,000	.....	.....	2,424 (b)	37,424
	$85,000	$24,500			$101,492

(a) $64/80 \times \$2,010$ (Company A's consolidated surplus, January 1, 1923) = \$1,608
(b) A's Surplus—Inside belongs to Company Y.

Jan. 1, 1926	Co. Z	Co. C	Co. Y + A+B+D	Eliminations		C. B. S.
Other Assets	$43,360	$6,850	$ 93,750	.....	.....	$143,960
B's Stock (b)	7,200	.....	.....	.....	$7,200	.....
C's Stock (b)	5,440	.....	.....	.....	5,440	.....
Goodwill	4,000	250	7,742	$ 376	.....	12,368
	$60,000	$7,100	$101,492			$156,328
A's Stock	.....	.....	$ 1,600	.....	.....	$ 1,600
B's Stock:						
Inside	.....	.....	4,800	4,800	.....	.....
Outside	.....	.....	1,200	.....	.....	1,200
C's Stock:						
Inside	.....	$3,200	.....	3,200	.....	.....
Outside	.....	800	.....	.....	.....	800
D's Stock	.....	.....	600	.....	.....	600
Y's Stock	.....	.....	50,000	.....	.....	50,000
Z's Stock	$40,000	.....	.....	.....	.....	40,000
A's Surplus	.....	.....	1,008	.....	.....	1,008
B's Surplus:						
Inside	.....	.....	3,616	2,104	.....	.....
	.....	.....	.....	1,512 (a)	.....	.....
Outside	.....	.....	904	.....	.....	904
C's Surplus:						
Inside	.....	2,480	.....	2,160	.....	.....
	.....	.....	.....	320 (a)	.....	.....
Outside	.....	620	.....	.....	.....	620
D's Surplus	.....	.....	340	.....	.....	340
Y's Surplus	.....	.....	37,424	.....	.....	37,424
Z's Surplus	20,000	.....	.....	.....	1,832 (a)	21,832
	$60,000	$7,100	$101,492			$156,328

(a) Inside surplus of Company B and Company C belongs to Company Z.
(b) The calculation of the elimination entries is:

	B's Stock	C's Stock	Total
Par	$4,800	$3,200	$ 8,000
Surplus	2,104 (c)	2,160 (d)	4,264
Goodwill	296	80	376
Carrying Value	$7,200	$5,440	$12,640

(c) $48/60 \times \$2,630$ (consolidated surplus, January 1, 1923) = $2,104
(d) $32/40 \times (\$1,500 + \$400 + \$400 + \$400) = \$2,160$

Jan. 1, 1926	Co. X	Co. Y + Z + A+B+C+D	Eliminations		C. B. S.
Other Assets	$ 7,360	$143,960	.....	.....	$151,320
A's Stock (a)	1,200	.....	.....	$ 1,200	.....
B's Stock (a)	1,020	.....	.....	1,020	.....
D's Stock (a)	420	.....	.....	420	.....
Y's Stock (a)	64,000	.....	.....	64,000	.....
Z's Stock (a)	48,000	.....	.....	48,000	.....
Goodwill	5,000	12,368	$ 9,553	.....	26,921
	$127,000	$156,328			$178,241

Jan. 1, 1926	Co. X	Co. Y + Z + A+B+C+D	Eliminations		C. B. S.
A's Stock:					
Inside		$ 800	$ 800		
Outside		800			$ 800
B's Stock:					
Inside		600	600		
Outside		600			600
D's Stock:					
Inside		300	300		
Outside		300			300
Y's Stock:					
Inside		40,000	40,000		
Outside		10,000			10,000
Z's Stock:					
Inside		32,000	32,000		
Outside		8,000			8,000
C's Stock		800			800
X's Stock	$ 80,000				80,000
A's Surplus:					
Inside		504	302		
			202 (g)		
Outside		504			504
B's Surplus:					
Inside		452	326		
			126 (g)		
Outside		452			452
D's Surplus:					
Inside		170	110		
			60 (g)		
Outside		170			170
Y's Surplus:					
Inside		29,939	20,646		
			9,293 (g)		
Outside		7,485			7,485
Z's Surplus:					
Inside		17,466	10,003		
			7,463 (g)		
Outside		4,366			4,366
C's Surplus		620			620
X's Surplus	47,000			$17,144 (g)	64,144
	$127,000	$156,328			$178,241

(a) The calculation of the eliminating entries is:

	A's Stock	B's Stock	D's Stock	Y's Stock	Z's Stock	Total
Par	$ 800	$ 600	$300	$40,000	$32,000	$ 73,700
Surplus	302 (b)	326 (c)	110 (d)	20,646 (e)	10,003 (f)	31,387
Goodwill	98	94	10	3,354	5,997	9,553
Carrying Value	$1,200	$1,020	$420	$64,000	$48,000	$114,640

(b) $8/80 \times \$3,020$ (Co. A's consolidated surplus, January 1, 1924) = $302

(c) $6/60 \times \$3,260$ (Co. B's consolidated surplus, January 1, 1924) = $326

(d) $3/30 \times (\$500 + \$300 + \$300) = \$110$

(e) $4/5 \times \$25,808$ (Co. Y's consolidated surplus, January 1, 1924) = $\$20,646$

(f) $32/40 \times \$12,504$ (Co. Z's consolidated surplus, January 1, 1924) = $\$10,003$

(g) The inside surplus of Co. A, Co. B, Co. D, Co. Y, and Co. Z belongs to Co. X.

Solution—Actual Value Method

Because of the consolidated balance sheets as of the dates the major holding company purchased into a minor holding company, the family tree under the Cost Value Method is more complicated than it is under the Actual Value Method. The family tree, under the Actual Value Method, is shown by Fig. 23.

The first step is to consolidate Company A and Company D; the second, Company A + D and Company B; the third,

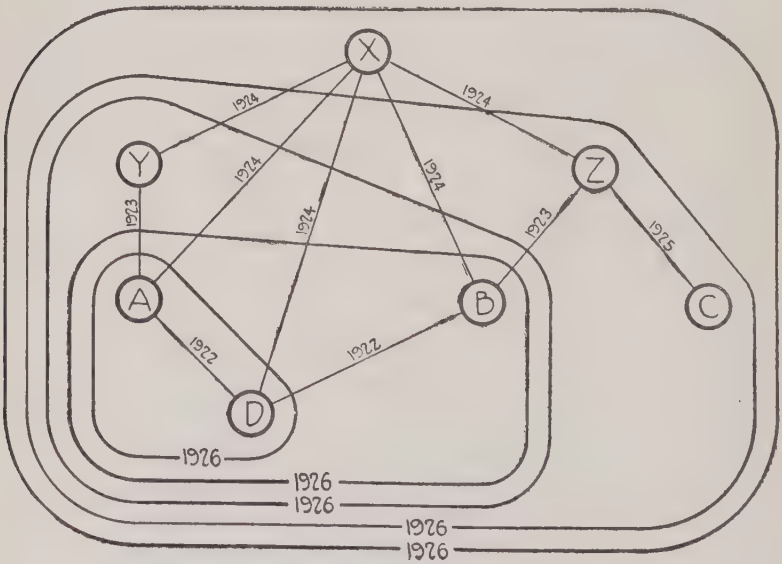

Fig. 23

Company A + B + D and Company Y; the fourth, Company Y + A + B + D and Company Z and Company C; and fifth, Company X and Company Y + Z + A + B + C + D. All steps should be made as of January 1, 1926.

Jan. 1, 1926	Co. A	Co. D	Eliminations		C. B. S.
Other Assets	$ 9,075	$4,500	.....	.....	$13,575
D's Stock (a)	3,465	.....	.....	$3,465	.....
Goodwill	500	200	$ 175	.....	875
	$13,040	$4,700			$14,450
Capital Stock:					
Inside	$ 8,000	$2,100	2,100	.....	$ 8,000
Outside	.....	900	.....	.....	900
Surplus:					
Inside	5,040	1,190	1,190	.....	5,040
Outside	.....	510	.....	.....	510
	$13,040	$4,700			$14,450

(a) $2,625 + [7/10 × ($300 + $300 + $300 + $300)] = $3,465

Jan. 1, 1926	Co. B	Co. A + D	Eliminations		C. B. S.
Other Assets	$ 9,775	$13,575	.....	.....	$23,350
D's Stock (a)	495	.....	.....	$495	.....
Goodwill	250	875	$ 25	.....	1,150
	$10,520	$14,450			$24,500
A's Stock	.....	$ 8,000	.....	.....	$ 8,000
B's Stock	$ 6,000	.....	.....	.....	6,000
D's Stock:					
Inside	.....	300	300	.....	.....
Outside	.....	600	.....	.....	600
A's Surplus	.....	5,040	.....	.....	5,040
B's Surplus	4,520	.....	.....	.....	4,520
D's Surplus:					
Inside	.....	170	170	.....	.....
Outside	.....	340	.....	.....	340
	$10,520	$14,450			$24,500

(a) $375 + [1/10 × ($300 + $300 + $300 + $300)] = $495

Jan. 1, 1926	Co. Y	Co. A +B+D	Eliminations		C. B. S.
Other Assets	$70,400	$23,350	.....	.....	$ 93,750
A's Stock (a)	12,024	.....	.....	$12,024	.....
Goodwill	5,000	1,150	$1,592	.....	7,742
	$87,424	$24,500			$101,492
A's Stock:					
Inside	.....	$ 6,400	6,400	.....	.....
Outside	.....	1,600	.....	.....	$ 1,600
B's Stock	.....	6,000	.....	.....	6,000
D's Stock	.....	600	.....	.....	600
Y's Stock	$50,000	.....	.....	.....	50,000
A's Surplus:					
Inside	.....	4,032	4,032	.....	.....
Outside	.....	1,008	.....	.....	1,008
B's Surplus	.....	4,520	.....	.....	4,520
D's Surplus	.....	340	.....	.....	340
Y's Surplus	37,424	.....	.....	.....	37,424
	$87,424	$24,500			$101,492

(a) The calculation of carrying value is:

Purchase Price	$ 9,600
Share in Co. A's Individual Profits [3 × (64/80 × $800)]	1,920
Share in Co. D's Individual Profits [3 × (64/80 × 21/30 × $300)]	504
Carrying Value	$12,024

Jan. 1, 1926	Co. Z	Co. C	Co. Y + A+B+D	Eliminations		C. B. S.
Other Assets	$43,360	$6,850	$ 93,750	.....	.....	$143,960
B's Stock (a)	8,712	.....	.....	.....	$8,712	.....
C's Stock (b)	5,760	.....	.....	.....	5,760	.....
Goodwill (c)	4,000	250	7,742	$ 376	.....	12,368
	$61,832	$7,100	$101,492			$156,328
A's Stock	.....	.....	$ 1,600	.....	.....	$ 1,600
B's Stock:						
Inside	.....	.....	4,800	4,800	.....	.....
Outside	.....	.....	1,200	.....	.....	1,200
C's Stock:						
Inside	.....	$3,200	.....	3,200	.....	.....
Outside	.....	800	.....	.....	.....	800
D's Stock	.....	.....	600	.....	.....	600
Y's Stock	.....	.....	50,000	.....	.....	50,000
Z's Stock	$40,000	.....	.....	.....	.....	40,000
A's Surplus	.....	.....	1,008	.....	.....	1,008
B's Surplus:						
Inside	.....	.....	3,616	3,616	.....	.....
Outside	.....	.....	904	.....	.....	904
C's Surplus:						
Inside	.....	2,480	.....	2,480	.....	.....
Outside	.....	620	.....	.....	.....	620
D's Surplus	.....	.....	340	.....	.....	340
Y's Surplus	.....	.....	37,424	.....	.....	37,424
Z's Surplus	21,832	.....	.....	.....	.....	21,832
	$61,832	$7,100	$101,492			$156,328

(a) The calculation of the carrying value is:

Purchase Price	$7,200
Share of Co. B's Individual Profits [3 × (48/60 × $600)]	1,440
Share of Co. D's Individual Profits [3 × (48/60 × 3/30 × $300)]	72
Carrying Value	$8,712

(b) The calculation of the carrying value is:

Purchase Price	$5,440
Share of Co. C's Individual Profits (32/40 × $400)	320
Carrying Value	$5,760

(c) The calculation of the elimination entries is:

	B's Stock	C's Stock	Total
Par	$4,800	$3,200	$ 8,000
Surplus	3,616	2,480	6,096
Goodwill	296	80	376
Carrying Value	$8,712	$5,760	$14,472

Jan. 1, 1926	Co. X	Co. Y + Z +A+B+C+D	Eliminations		C. B. S.
Other Assets	$ 7,360	$143,960	.....	.....	$151,320
A's Stock (a)	1,402	.....	.....	$ 1,402	.....
B's Stock (b)	1,146	.....	.....	1,146	.....
D's Stock (c)	480	.....	.....	480	.....
Y's Stock (d)	73,293	.....	.....	73,293	.....
Z's Stock (e)	55,463	.....	.....	55,463	.....
Goodwill (f)	5,000	12,368	$ 9,553	.....	26,921
	$144,144	$156,328			$178,241
A's Stock:					
Inside	.....	$ 800	800	.....	.....
Outside	.....	800	.....	.....	$ 800
B's Stock:					
Inside	.....	600	600	.....	.....
Outside	.....	600	.....	.....	600
D's Stock:					
Inside	.....	300	300	.....	.....
Outside	.....	300	.....	.....	300
Y's Stock:					
Inside	.....	40,000	40,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
Z's Stock:					
Inside	.....	32,000	32,000	.....	.....
Outside	.....	8,000	.....	.....	8,000
C's Stock	.....	800	.....	.....	800
X's Stock	$80,000	.....	.....	.....	80,000
A's Surplus:					
Inside	.....	504	504	.....	.....
Outside	.....	504	.....	.....	504
B's Surplus:					
Inside	.....	452	452	.....	.....
Outside	.....	452	.....	.....	452
D's Surplus:					
Inside	.....	170	170	.....	.....
Outside	.....	170	.....	.....	170
Y's Surplus:					
Inside	.....	29,939	29,939	.....	.....
Outside	.....	7,485	.....	.....	7,485
Z's Surplus:					
Inside	.....	17,466	17,466	.....	.....
Outside	.....	4,366	.....	.....	4,366
C's Surplus	.....	620	.....	.....	620
X's Surplus	64,144	.....	.....	.....	64,144
	$144,144	$156,328			$178,241

(a) The calculation of the carrying value is:

Purchase Price	$1,200
Share in Co. A's Individual Profits:	
1924 (8/80 × $800)	80
1925 (8/80 × $800)	80
Share in Co. D's Individual Profits:	
1924 (8/80 × 21/30 × $300)	21
1925 (8/80 × 21/30 × $300)	21
Carrying Value	$1,402

(b) The calculation of the carrying value is:

Purchase Price	$1,020
Share in Co. B's Individual Profits:	
1924 (6/60 × $600)	60
1925 (6/60 × $600)	60
Share in Co. D's Individual Profits:	
1924 (6/60 × 3/30 × $300)	3
1925 (6/60 × 3/30 × $300)	3
Carrying Value	$1,146

(c) The calculation of the carrying value is:

Purchase Price	$420
Share in Co. D's Individual Profits:	
1924 (3/30 × $300)	30
1925 (3/30 × $300)	30
Carrying Value	$480

(d) The calculation of the carrying value is:

Purchase Price	$64,000.00
Share of Co. Y's Individual Profits:	
1924 (40/50 × $5,000)	4,000.00
1925 (40/50 × $5,000)	4,000.00
Share of Co. A's Individual Profits:	
1924 (40/50 × 64/80 × $800)	512.00
1925 (40/50 × 64/80 × $800)	512.00
Share of Co. D's Individual Profits:	
1924 (40/50 × 64/80 × 21/30 × $300)	134.40
1925 (40/50 × 64/80 × 21/30 × $300)	134.40
	$73,292.80

(e) The calculation of the carrying value is:

Purchase Price	$48,000.00
Share of Co. Z's Individual Profits:	
1924 (32/40 × $4,000)	3,200.00
1925 (32/40 × $4,000)	3,200.00
Share of Co. B's Individual Profits:	
1924 (32/40 × 48/60 × $600)	384.00
1925 (32/40 × 48/60 × $600)	384.00
Share of Co. C's Individual Profits:	
1925 (32/40 × 32/40 × $400)	256.00
Share of Co. D's Individual Profits:	
1924 (32/40 × 48/60 × 3/30 × $300)	19.20
1925 (32/40 × 48/60 × 3/30 × $300)	19.20
	$55,462.40

(f) The calculation of the elimination entries is:

	A's Stock	B's Stock	D's Stock	Y's Stock	Z's Stock	Total
Par	$ 800	$ 600	$300	$40,000	$32,000	$ 73,700
Surplus	504	452	170	29,939	17,466	48,531
Goodwill	98	94	10	3,354	5,997	9,553
Carrying Value	$1,402	$1,146	$480	$73,293	$55,463	$131,784

CHAPTER XII

MUTUAL STOCKHOLDINGS

The effect of mutual stockholdings on consolidated balance sheet technique depends on whether there is mutual control or not. If there is mutual control, the Goodwill element is present in both investments, but, if there is no mutual control, the intercompany investment, which does not carry control, is practically treasury stock of the group as controlled by the majority interests.

Mutual stockholdings without mutual control are frequently found. Mutual stockholdings with mutual control occur rarely. The author, however, has seen a case in which the first company owned 93 per cent of the second company, while the second company owned 87 per cent of the first company.

Mutual Stockholdings Without Mutual Control

From the point of view of the minority interests, the intercompany investment, which does not carry control, is a perfectly good current asset, an investment in an outside concern. Therefore, the elimination of its carrying value must not affect the value of the holdings of the minority interests.

Rule XXVI

In case of mutual stockholdings without mutual control, calculate, analyze, and eliminate the carrying value of the intercompany stock investment, which carries control, by the usual rules.

Evaluate the intercompany stock investment, which does not carry control, at cost or market, whichever

is the lower, and eliminate its carrying value by deducting the par value from the holding company's capital stock and by deducting any premium or adding any discount to the holding company's surplus.

The accuracy of not allowing goodwill in cases of mutual stockholdings without mutual control can be seen from the following example: The directors of Company X have a chance to acquire some of Company X's stock at an attractive figure. Should it make any difference whether Company X bought the stock or Company Y (owned entirely by Company X) bought it? The answer obviously is no.

Cases.—The most important variations in mutual stockholdings without mutual control are:

A. Present market value is higher than cost value.
   (a) Stock bought at a premium.
   (b) Stock bought at a discount.
B. Present market value is lower than cost value.
   (a) Stock bought at a premium.
   (b) Stock bought at a discount.

Case Aa

	Co. X	Co. Y		Co. X	Co. Y
Other Assets.....	$100,000	$50,000	Capital Stock.....	$100,000	$50,000
Goodwill.....	10,000	5,000	Surplus.....	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1924, the date of the above balance sheets, Company X purchased 400 shares of Company Y's stock at 125 on the open market. On January 1, 1925, Company Y purchased 100 shares of Company X's stock at 115 on the open market. Each company made a net operating profit of $10,000 during each of the years in question. Make a consolidated balance sheet as of January 1, 1926, if Company X's stock sells on the stock exchange at 150.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$58,500	.....	.....	$128,500
Y's Stock	50,000	.....	.....	$50,000	.....
X's Stock	.....	11,500	.....	11,500	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$130,000	$75,000			$149,500
X's Stock	$100,000	.....	10,000	.....	$ 90,000
Y's Stock:					
Inside	.....	$40,000	40,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
X's Surplus (a)	30,000	.....	1,500	.....	28,500
Y's Surplus:					
Inside (b)	.....	20,000	4,000	.....	16,000
Outside	.....	5,000	.....	.....	5,000
	$130,000	$75,000			$149,500

(a) $11,500 − $10,000 = $1,500
(b) 4/5 × $5,000 = $4,000

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$58,500	.....	.....	$128,500
Y's Stock (a)	66,000	.....	.....	$66,000	.....
X's Stock	.....	11,500	.....	11,500	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$146,000	$75,000			$149,500
X's Stock	$100,000	.....	10,000	.....	$ 90,000
Y's Stock:					
Inside	.....	$40,000	40,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
X's Surplus (b)	46,000	.....	1,500	.....	44,500
Y's Surplus:					
Inside	.....	20,000	20,000	.....	.....
Outside	.....	5,000	.....	.....	5,000
	$146,000	$75,000			$149,500

(a) $50,000 + [4/5 × ($10,000 + $10,000)] = $66,000
(b) $11,500 − $10,000 = $1,500

Both of the above solutions allocate the surplus $44,500 to the majority and $5,000 to the minority interests.

Case Ab

Same as Case Aa if Company Y had bought Company X's stock at 95 instead of at 115.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$60,500	.....	.....	$130,500
Y's Stock	50,000	.....	.....	$50,000	.....
X's Stock	.....	9,500	.....	9,500	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$130,000	$75,000			$151,500
X's Stock	$100,000	.....	10,000	.....	$ 90,000
Y's Stock:					
Inside	.....	$40,000	40,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
X's Surplus (a)	30,000	.....	.....	500	30,500
Y's Surplus:					
Inside (b)	.....	20,000	4,000	.....	16,000
Outside	.....	5,000	.....	.....	5,000
	$130,000	$75,000			$151,500

(a) $10,000 − $9,500 = $500
(b) 4/5 × $5,000 = $4,000

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$60,500	.....	.....	$130,500
Y's Stock (a)	66,000	.....	.....	$66,000	.....
X's Stock	.....	9,500	.....	9,500	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$146,000	$75,000			$151,500
X's Stock	$100,000	.....	10,000	.....	$ 90,000
Y's Stock:					
Inside	.....	$40,000	40,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
X's Surplus (b)	46,000	.....	.....	500	46,500
Y's Surplus:					
Inside	.....	20,000	20,000	.....	.....
Outside	.....	5,000	.....	.....	5,000
	$146,000	$75,000			$151,500

(a) $50,000 + [4/5 × ($10,000 + $10,000)] = $66,000
(b) $10,000 − $9,500 = $500

Both of the above solutions allocate the surplus $46,500 to the majority and $5,000 to the minority interests.

Case Ba

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	Capital Stock	$100,000	$50,000
Goodwill	10,000	5,000	Surplus	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1924, the date of the above balance sheets, Company X purchased 400 shares of Company Y's stock at 125 on the open market. On January 1, 1925, Company Y purchased 50 shares of Company X's stock at 105 on the open market. Each company suffered an operating loss of $2,000 during each of the years in question. Make a consolidated balance sheet as of January 1, 1926, if Company X's stock sells at 95 on the stock exchange.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 46,000	$40,750	.....	.....	$ 86,750
Y's Stock	50,000	.....	.....	$50,000	.....
X's Stock (a)	.....	4,750	.....	4,750	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$106,000	$50,500			$107,750
X's Stock	$100,000	.....	5,000	.....	$ 95,000
Y's Stock:					
Inside	.....	$40,000	40,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
X's Surplus (b)	6,000	.....	.....	250	6,250
Y's Surplus:					
Inside (c)	.....	400	4,000	.....	*3,600
Outside	.....	100	.....	.....	100
	$106,000	$50,500			$107,750

* Denotes deficit.

(a) Valued at market; the journal entry on Company Y's books is:

Surplus	$500	
X's Stock		$500

To reduce investment to market value.

(b) $5,000 − $4,750 = $250
(c) 4/5 × $5,000 = $4,000

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 46,000	$40,750	.....	.....	$ 86,750
Y's Stock (a)	46,400	.....	.....	$46,400	.....
X's Stock (b)	.....	4,750	.....	4,750	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$102,400	$50,500			$107,750

(a) $50,000 − {4/5 × [$2,000 + $2,000 + ($5,250 − $4,750)]} = $46,400
(b) See footnote (a) to Cost Value Method solution.

	Co. X	Co. Y	Eliminations		C. B. S.
X's Stock	$100,000	.....	$5,000	.....	$ 95,000
Y's Stock:					
Inside	.....	$40,000	40,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
X's Surplus (c)	2,400	.....	.....	$ 250	2,650
Y's Surplus:					
Inside	.....	400	400	.....	.....
Outside	.....	100	.....	.....	100
	$102,400	$50,500			$107,750

(c) $5,000 − $4,750 = $250

Both of the above solutions allocate the surplus $2,650 to the majority and $100 to the minority interests.

Case Bb

Same as Case Ba if Company Y had purchased Company X's stock at 98 instead of at 105.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 46,000	$41,100	.....	.....	$ 87,100
Y's Stock	50,000	.....	.....	$50,000	.....
X's Stock (a)	.....	4,750	.....	4,750	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$106,000	$50,850			$108,100
X's Stock	$100,000	.....	5,000	.....	$ 95,000
Y's Stock:					
Inside	.....	$40,000	40,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
X's Surplus (b)	6,000	.....	.....	250	6,250
Y's Surplus:					
Inside (c)	.....	680	4,000	.....	*3,320
Outside	.....	170	.....	.....	170
	$106,000	$50,850			$108,100

* Denotes deficit.

(a) Valued at market; the journal entry on Company Y's books is:

Surplus	$150	
X's Stock		$150
To reduce investment to market value.		

(b) $5,000 − $4,750 = $250
(c) 4/5 × $5,000 = $4,000

SOLUTION—ACTUAL VALUE METHOD

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 46,000	$41,100	.....	.....	$ 87,100
Y's Stock (a)	46,680	.....	.....	$46,680	.....
X's Stock (b)	.....	4,750	.....	4,750	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$102,680	$50,850			$108,100
X's Stock	$100,000	.....	5,000	.....	$ 95,000
Y's Stock:					
Inside	.....	$40,000	40,000	.....	.....
Outside	.....	10,000	.....	.....	10,000
X's Surplus (c)	2,680	.....	.....	250	2,930
Y's Surplus:					
Inside	.....	680	680	.....	.....
Outside	.....	170	.....	.....	170
	$102,680	$50,850			$108,100

(a) $50,000 − {4/5 × [$2,000 + $2,000 + ($4,900 − $4,750)]} = $46,680
(b) See footnote (a) to Cost Value Method solution.
(c) $5,000 − $4,750 = $250

Mutual Stockholdings with Mutual Control

Since goodwill vests in control the analysis of the carrying value of both intercompany stock investments in cases of mutual stockholdings with mutual control must include the Goodwill element. The complexities which lie in the calculation of the minority interests under the Cost Value Method and in the computation of the true earnings of each company under the Actual Value Method, involve simultaneous algebraic equations in two unknowns.

The mathematics involved in the computation of the true earnings is:

Let a=True profit of Company X
b=True profit of Company Y
c=Profit made individually by Company X
d=Profit made individually by Company Y
e=Percentage of Company Y's stock held by Company X
f=Percentage of Company X's stock held by Company Y

The simultaneous algebraic equations are:

1st $a=c+(e\times b)$
2nd $b=d+(f\times a)$

The solution is performed by substituting the value of b shown in the second equation in the first, thus

$$a=c+\{e\times[d+(f\times a)]\}$$

Then solve for a and calculate b by substituting the resulting value of a in the second equation.

The mathematics involved in the computation of the minority interests, under the Cost Value Method of preparing consolidated balance sheets, is:

Let a=Present surplus applicable to Company X's stock not held by Company Y
b=Present surplus applicable to Company Y's stock not held by Company X
c=Present consolidated surplus
d=Surplus belonging to Company X's stockholders when Company Y acquired its holdings
e=True profit of Company X (as calculated above) since Company Y acquired its holdings
f=Percentage of Company X's stock not held by Company Y

The equations then are:

$$a=(d+e)\times f$$
$$b=c-a$$

Rule XXVII

In case of mutual stockholdings with mutual control, calculate, analyze and eliminate the carrying value of each of the intercompany stock investments as though it were the only investment, except that, under the Actual Value Method, the carrying values must reflect the true earnings of each company rather than the individual earnings of each company, and, under the Cost Value Method, the minority interests should be ignored until after the consolidated surplus is computed.

ILLUSTRATIVE PROBLEM.—On January 1, 1924, the date of the following balance sheets, Company X purchased 450 shares of Company Y's stock at 115 on the open market.

	Co. X	Co. Y		Co. X	Co. Y
Other Assets.....	$60,000	$50,000	Capital Stock.....	$60,000	$50,000
Goodwill.....	10,000	5,000	Surplus.....	10,000	5,000
	$70,000	$55,000		$70,000	$55,000

On January 1, 1925, Company Y purchased 450 shares of Company X's stock at 130 on the open market. If each company made an operating profit of $10,000 during each of the years 1924 and 1925, and declared no dividends, make a consolidated balance sheet as of January 1, 1926.

SOLUTION—ACTUAL VALUE METHOD

Let a = Co. X's true profit
b = Co. Y's true profit
$a = \$10,000 + .9b$
$b = \$10,000 + .75a$
$a = \$10,000 + .9\ (10,000 + .75a)$
$.325a = \$19,000$
$a = \$58,461.54$
$b = \$10,000 + .75\ (\$58,461.54)$
$b = \$53,846.16$

Jan. 1, 1926	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets..	$ 28,250.00	$ 11,500.00	.....	.....	$39,750.00
Y's Stock (a)..	109,211.54	.....	.....	$109,211.54	.....
X's Stock (b)..	.....	102,346.16	.....	102,346.16	.....
Goodwill.....	10,000.00	5,000.00	.....	6,000.00	9,000.00
	$147,461.54	$118,846.16			$48,750.00
Capital Stock:					
Inside.....	$ 45,000.00	$ 45,000.00	$ 90,000.00	.....	.....
X's Minority	15,000.00	.....	.....	.....	$15,000.00
Y's Minority	.....	5,000.00	.....	.....	5,000.00
Surplus:					
Inside.....	65,596.16	61,961.54	127,557.70	.....	.....
X's Minority	21,865.38	.....	.....	.....	21,865.38
Y's Minority	.....	6,884.62	.....	.....	6,884.62
	$147,461.54	$118,846.16			$48,750.00

(a) $\$51,750 + (45/50 \times \$10,000) + (45/50 \times \$53,846.16) = \$109,211.54$
(b) $\$58,500 + (45/60 \times \$58,461.54) = \$102,346.16$

Solution—Cost Value Method

Jan. 1, 1925	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$18,250	$60,000	.....	.....	$78,250
Y's Stock	51,750	.....	.....	$51,750	.....
Goodwill	10,000	5,000	$ 2,250	.....	17,250
	$80,000	$65,000			$95,500
Capital Stock:					
Inside	$60,000	$45,000	45,000	.....	$60,000
Outside	.....	5,000	.....	.....	5,000
Surplus:					
Inside (a)	20,000	13,500	4,500	.....	29,000
Outside	.....	1,500	.....	.....	1,500
	$80,000	$65,000			$95,500

(a) $45/50 \times \$5,000 = \$4,500$

The above consolidated balance sheet was prepared to ascertain the surplus Company Y bought into on January 1, 1925, which surplus was $29,000.

Jan. 1, 1926	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$28,250	$11,500	.....	.....	$39,750
Y's Stock	51,750	.....	.....	$51,750	.....
X's Stock	.....	58,500	.....	58,500	.....
Goodwill	10,000	5,000	.....	6,000	9,000
	$90,000	$75,000			$48,750
Capital Stock	$60,000	$50,000	$90,000	.....	$20,000
Surplus (a)	30,000	25,000	26,250	.....	28,750
	$90,000	$75,000			$48,750

(a) $(45/60 \times \$29,000) + (45/50 \times \$5,000) = \$26,250$

The calculation of the surplus belonging to the stockholders of Company X and Company Y is:

$29,000.00	Surplus belonging to Co. X's stockholders, January 1, 1925—see Cost Value Method balance sheet as of that date.
58,461.54	True profit for Co. X during 1925—see calculation under Actual Value Method.
$87,461.54	Surplus applicable to Co. X's stockholders.
.25	Per cent of Co. X's stock not held by Co. Y.
$21,865.38	Surplus applicable to Co. X's stock not held by Co. Y.
$28,750.00	Total consolidated surplus, January 1, 1926.
21,865.38	Surplus applicable to Co. X's stock not held by Co. Y.
$ 6,884.62	Surplus applicable to Co. Y's stock not held by Co. X.

The consolidated balance sheet as of January 1, 1926, by both methods therefore is:

Other Assets	$39,750.00	Co. X's Stockholders:	
Goodwill	9,000.00	Capital Stock	$15,000.00
		Surplus	21,865.38
		Co. Y's Stockholders:	
		Capital Stock	5,000.00
		Surplus	6,884.62
	$48,750.00		$48,750.00

CHAPTER XIII

TREASURY STOCK

Since treasury stock is not an asset, it must be carried at par or the Surplus account will be misstated. Treasury stock has no claim on surplus. Treasury stock of the holding company may be shown on a consolidated balance sheet as a deduction, at par, from the authorized capital stock of the holding company, but the treasury stock of a subsidiary should not be shown as it can not well be adapted to the general plan of differentiating between the minority and majority interests.

Rule XXVIII

Cancel all treasury stock on the working papers of the individual companies at date holding company acquired control of subsidiary and at present before starting the preparation of consolidated working papers.

Eliminate the intercompany stock investment as though the treasury stock were legally cancelled.

Re-establish at par, if desired, the treasury stock of the holding company but not of the subsidiary.

Cases.—Ignoring the fact that the Premium on Treasury Stock and Discount on Treasury Stock accounts may be used in connection with treasury stock, the chief variations in the underlying conditions regarding treasury stock are:

A. On books of holding company:
   (a) Booked at par.
   (b) Booked at a discount.
   (c) Booked at a premium.

B. On books of subsidiary:
  (a) Held at date of acquisition of control and still held.
    (1) Booked at par.
    (2) Booked at a discount.
    (3) Booked at a premium.
  (b) Held at date of acquisition of control but subsequently sold.
    (1) Booked at par.
    (2) Booked at a discount.
    (3) Booked at a premium.
  (c) Purchased after date of acquisition of control.
    (1) Booked at par.
    (2) Booked at a discount.
    (3) Booked at a premium.
C. On books of grandson.

Case Aa

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	Capital Stock	$100,000	$50,000
Goodwill	10,000	5,000	Surplus	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, Company X bought on the open market 400 shares of Company Y's stock at 125 and 100 shares of its own stock at par. If each company made an operating net profit of $10,000 during 1925, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 50,000	$60,000	.....	.....	$110,000
Y's Stock	50,000	.....	.....	$50,000	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$110,000	$65,000			$131,000
Capital Stock:					
Inside	$ 90,000	$40,000	40,000	.....	$ 90,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	20,000	12,000	4,000	.....	28,000
Outside	.....	3,000	.....	.....	3,000
	$110,000	$65,000			$131,000

(a) $4/5 \times \$5,000 = \$4,000$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 50,000	$60,000	.....	.....	$110,000
Y's Stock (a)	58,000	.....	.....	$58,000	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$118,000	$65,000			$131,000
Capital Stock:					
Inside	$ 90,000	$40,000	40,000	.....	$ 90,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	28,000	12,000	12,000	.....	28,000
Outside	.....	3,000	.....	.....	3,000
	$118,000	$65,000			$131,000

(a) $\$50,000 + (4/5 \times \$10,000) = \$58,000$

The formal consolidated balance sheet may be:

Company X and Its Subsidiary, Company Y

Consolidated Balance Sheet

January 1, 1926

Other Assets			$110,000
Goodwill			21,000
			$131,000
Majority Interests:			
Capital Stock—Authorized	$100,000		
Less Treasury Stock	10,000	$90,000	
Surplus		28,000	$118,000
Minority Interests:			
Capital Stock (Co. Y)		$10,000	
Surplus		3,000	13,000
			$131,000

or,

Company X and Its Subsidiary, Company Y

Consolidated Balance Sheet

January 1, 1926

Other Assets		$110,000
Goodwill		21,000
		$131,000
Majority Interests:		
Capital Stock	$90,000	
Surplus	28,000	$118,000
Minority Interests:		
Capital Stock	$10,000	
Surplus	3,000	13,000
		$131,000

Case Ab

Same as Case Aa if Company X had bought its own stock at 90 instead of at par.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 51,000	$60,000	.....	.....	$111,000
Y's Stock	50,000	.....	.....	$50,000	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$111,000	$65,000			$132,000
Capital Stock:					
Inside	$ 90,000	$40,000	40,000	.....	$ 90,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	21,000	12,000	4,000	.....	29,000
Outside	.....	3,000	.....	.....	3,000
	$111,000	$65,000			$132,000

(a) $4/5 \times \$5,000 = \$4,000$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 51,000	$60,000	.....	.....	$111,000
Y's Stock (a)	58,000	.....	.....	$58,000	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$119,000	$65,000			$132,000
Capital Stock:					
Inside	$ 90,000	$40,000	40,000	.....	$ 90,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	29,000	12,000	12,000	.....	29,000
Outside	.....	3,000	.....	.....	3,000
	$119,000	$65,000			$132,000

(a) $\$50,000 + (4/5 \times \$10,000) = \$58,000$

Case Ac

Same as Case Aa if Company X had bought its own stock at 110 instead of at par.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 49,000	$60,000	.....	.....	$109,000
Y's Stock	50,000	.....	.....	$50,000	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$109,000	$65,000			$130,000

	Co. X	Co. Y	Eliminations		C. B. S.
Capital Stock:					
Inside	$ 90,000	$40,000	$40,000	.....	$ 90,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	19,000	12,000	4,000	.....	27,000
Outside	.....	3,000	.....	.....	3,000
	$109,000	$65,000			$130,000

(a) $4/5 \times \$5,000 = \$4,000$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 49,000	$60,000	.....	.....	$109,000
Y's Stock (a)	58,000	.....	.....	$58,000	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$117,000	$65,000			$130,000
Capital Stock:					
Inside	$ 90,000	$40,000	40,000	.....	$ 90,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	27,000	12,000	12,000	.....	27,000
Outside	.....	3,000	.....	.....	3,000
	$117,000	$65,000			$130,000

(a) $\$50,000 + (4/5 \times \$10,000) = \$58,000$

Case Ba1

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	Capital Stock	$100,000	$50,000
Goodwill	10,000	5,000	Surplus	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1924, the date of the above balance sheets, Company Y bought 100 shares of its own stock at par. On January 1, 1925, Company X bought 300 shares of Company Y's stock at 130 on the open market. If each company made an operating profit of $10,000 during each of the years in question, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 81,000	$60,000	.....	.....	$141,000
Y's Stock	39,000	.....	.....	$39,000	.....
Goodwill	10,000	5,000	.....	2,250	12,750
	$130,000	$65,000			$153,750

	Co. X	Co. Y	Eliminations		C. B. S.
Capital Stock					
Inside	$100,000	$30,000	$30,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	30,000	18,750	11,250	.....	37,500
Outside (b)	.....	6,250	.....	.....	6,250
	$130,000	$65,000			$153,750

(a) $\frac{300}{500-100} \times (\$5,000 + \$10,000) = \$11,250$

(b) $\frac{100}{500-100} \times (\$5,000 + \$10,000 + \$10,000) = \$6,250$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 81,000	$60,000	.....	.....	$141,000
Y's Stock (a)	46,500	.....	.....	$46,500	.....
Goodwill	10,000	5,000	.....	2,250	12,750
	$137,500	$65,000			$153,750
Capital Stock:					
Inside	$100,000	$30,000	$30,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	37,500	18,750	18,750	.....	37,500
Outside	.....	6,250	.....	.....	6,250
	$137,500	$65,000			$153,750

(a) $\$39,000 + \left(\frac{300}{500-100} \times \$10,000\right) = \$46,500$

Case Ba2

Same as Case Ba1 if Company Y had bought its own stock at 90 instead of at par.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 81,000	$61,000	.....	.....	$142,000
Y's Stock	39,000	.....	.....	$39,000	.....
Goodwill	10,000	5,000	.....	3,000	12,000
	$130,000	$66,000			$154,000
Capital Stock:					
Inside	$100,000	$30,000	$30,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	30,000	19,500	12,000	.....	37,500
Outside (b)	.....	6,500	.....	.....	6,500
	$130,000	$66,000			$154,000

(a) $\frac{300}{500-100} \times (\$5,000 + \$1,000 + \$10,000) = \$12,000$

(b) $\frac{100}{500-100} \times (\$5,000 + \$1,000 + \$10,000 + \$10,000) = \$6,500$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 81,000	$61,000	.....	.....	$142,000
Y's Stock (a)	46,500	.....	.....	$46,500	.....
Goodwill	10,000	5,000	.....	3,000	12,000
	$137,500	$66,000			$154,000
Capital Stock:					
Inside	$100,000	$30,000	$30,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	37,500	19,500	19,500	.....	37,500
Outside	.....	6,500	.....	.....	6,500
	$137,500	$66,000			$154,000

(a) $\$39,000 + \left(\frac{300}{500-100} \times \$10,000\right) = \$46,500$

Case Ba3

Same as Case Ba1 if Company Y had bought its own stock at 110 instead of at par.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 81,000	$59,000	.....	.....	$140,000
Y's Stock	39,000	.....	.....	$39,000	.....
Goodwill	10,000	5,000	.....	1,500	13,500
	$130,000	$64,000			$153,500
Capital Stock:					
Inside	$100,000	$30,000	$30,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	30,000	18,000	10,500	.....	37,500
Outside (b)	.....	6,000	.....	.....	6,000
	$130,000	$64,000			$153,500

(a) $\frac{300}{500-100} \times (\$5,000 - \$1,000 + \$10,000) = \$10,500$

(b) $\frac{100}{500-100} \times (\$5,000 - \$1,000 + \$10,000 + \$10,000) = \$6,000$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 81,000	$59,000	.....	.....	$140,000
Y's Stock (a)	46,500	.....	.....	$46,500	.....
Goodwill	10,000	5,000	.....	1,500	13,500
	$137,500	$64,000			$153,500
Capital Stock:					
Inside	$100,000	$30,000	$30,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	37,500	18,000	18,000	.....	37,500
Outside	.....	6,000	.....	.....	6,000
	$137,500	$64,000			$153,500

(a) $\$39{,}000 + \left(\frac{300}{500 - 100} \times \$10{,}000\right) = \$46{,}500$

Case Bb1

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$40,000	Capital Stock	$100,000	$50,000
Treasury Stock	.....	10,000	Surplus	10,000	5,000
Goodwill	10,000	5,000			
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above post-closing trial balances, Company X bought 300 shares of Company Y's stock at 120 on the open market. If each company made an operating profit of $10,000 during 1925, and if Company Y sold all its treasury stock (100 shares) at 130 on December 31, 1925, to Bert White, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 74,000	$63,000	.....	.....	$137,000
Y's Stock	36,000	.....	.....	$36,000	.....
Goodwill	10,000	5,000	$ 2,250	.....	17,250
	$120,000	$68,000			$154,250
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside (a)	20,000	10,800	3,750	.....	27,050
Outside (b)	.....	7,200	.....	.....	7,200
	$120,000	$68,000			$154,250

(a) $\frac{300}{500 - 100} \times \$5,000 = \$3,750$

(b) $200/500 \times (\$5,000 + \$10,000 + \$3,000) = \$7,200$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 74,000	$63,000	.....	.....	$137,000
Y's Stock (a)	43,050	.....	.....	$43,050	.....
Goodwill	10,000	5,000	$ 2,250	.....	17,250
	$127,050	$68,000			$154,250
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside	27,050	10,800	10,800	.....	27,050
Outside	.....	7,200	.....	.....	7,200
	$127,050	$68,000			$154,250

(a) The calculation of the carrying value of the investment is:

Purchase Price	$36,000	
1925 Gain (3/4 × $10,000)	7,500	$43,500
Loss on Sale of Treasury Stock:		
Owned Surplus before Sale [3/4 × ($5,000 + $10,000)]	$11,250	
Owned Surplus after Sale [3/5 × ($5,000 + $10,000 + $3,000)]	10,800	450
Carrying Value		$43,050

Case Bb2

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$42,000	Capital Stock	$100,000	$50,000
Treasury Stock	.....	8,000	Surplus	10,000	5,000
Goodwill	10,000	5,000			
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above post-closing trial balances, Company X bought 300 shares of Company Y's stock at 120 on the open market. If each company made an operating profit of $10,000 during 1925, and if Company Y sold all its treasury stock (100 shares) at 130 on December 31, 1925, to D. A. Dollarhide, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 74,000	$65,000	.....	.....	$139,000
Y's Stock	36,000	.....	.....	$36,000	.....
Goodwill	10,000	5,000	$ 750	.....	15,750
	$120,000	$70,000			$154,750
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside (a)	20,000	12,000	5,250	.....	26,750
Outside (b)	.....	8,000	.....	.....	8,000
	$120,000	$70,000			$154,750

(a) $\frac{300}{500 - 100} \times [\$5,000 + (\$10,000 - \$8,000)] = \$5,250$

(b) $200/500 \times (\$5,000 + \$10,000 + \$5,000) = \$8,000$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 74,000	$65,000	.....	.....	$139,000
Y's Stock (a)	42,750	.....	.....	$42,750	.....
Goodwill	10,000	5,000	$ 750	.....	15,750
	$126,750	$70,000			$154,750
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside	26,750	12,000	12,000	.....	26,750
Outside	.....	8,000	.....	.....	8,000
	$126,750	$70,000			$154,750

(a) The calculation of the carrying value of the investment is:

Purchase Price	$36,000	
1925 Gain (3/4 × $10,000)	7,500	$43,500
Loss on Sale of Treasury Stock:		
Owned Surplus before Sale [3/4 × ($5,000 + $10,000 + $2,000)]	$12,750	
Owned Surplus after Sale [3/5 × ($5,000 + $10,000 + $5,000)]	12,000	750
Carrying Value		$42,750

Case Bb3

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$39,000	Capital Stock	$100,000	$50,000
Treasury Stock	.....	11,000	Surplus	10,000	5,000
Goodwill	10,000	5,000			
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above post-closing trial balances, Company X bought 300 shares of Company Y's stock at 120 on the open market. If each company made an operating profit of $10,000 during 1925, and if Y sold all its treasury stock (100 shares) at 180 on December 31, 1925, to James A. Bell, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 74,000	$67,000	.....	.....	$141,000
Y's Stock	36,000	.....	.....	$36,000	.....
Goodwill	10,000	5,000	$ 3,000	.....	18,000
	$120,000	$72,000			$159,000
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside (a)	20,000	13,200	3,000	.....	30,200
Outside(b)	.....	8,800	.....	.....	8,800
	$120,000	$72,000			$159,000

(a) $\frac{300}{500 - 100} \times [\$5,000 - (\$11,000 - \$10,000)] = \$3,000$

(b) $200/500 \times (\$5,000 + \$10,000 + \$7,000) = \$8,800$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 74,000	$67,000	.....	.....	$141,000
Y's Stock (a)	46,200	.....	.....	$46,200	.....
Goodwill	10,000	5,000	$ 3,000	.....	18,000
	$130,200	$72,000			$159,000
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	20,000	.....	.....	20,000
Surplus:					
Inside	30,200	13,200	13,200	.....	30,200
Outside	.....	8,800	.....	.....	8,800
	$130,200	$72,000			$159,000

(a) The calculation of the carrying value of the investment is:

Purchase Price		$36,000
1925 Gain (3/4 × $10,000)		7,500
Gain on Sale of Treasury Stock:		
Owned Surplus after Sale [3/5 × ($5,000 + $10,000 + $7,000)]	$13,200	
Owned Surplus before Sale [3/4 × ($5,000 + $10,000 − $1,000)]	10,500	2,700
Carrying Value		$46,200

Case Bc1

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	Capital Stock	$100,000	$50,000
Goodwill	10,000	5,000	Surplus	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1924, the date of the above balance sheets, Company X bought 300 shares of Company Y's stock at 125 on the open market. On January 1, 1925, Company Y bought 100 shares of its own stock at par from J. W. Beers. If each company made an operating net profit of $10,000 in each of the years in question, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 82,500	$60,000	.....	.....	$142,500
Y's Stock	37,500	.....	.....	$37,500	.....
Goodwill	10,000	5,000	$ 4,500	.....	19,500
	$130,000	$65,000			$162,000
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	30,000	18,750	3,000	.....	45,750
Outside (b)	.....	6,250	.....	.....	6,250
	$130,000	$65,000			$162,000

(a) $3/5 \times \$5,000 = \$3,000$

(b) $\frac{100}{500 - 100} \times (\$5,000 + \$10,000 + \$10,000) = \$6,250$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 82,500	$60,000	.....	.....	$142,500
Y's Stock (a)	53,250	.....	.....	$53,250	.....
Goodwill	10,000	5,000	$ 4,500	.....	19,500
	$145,750	$65,000			$162,000
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	45,750	18,750	18,750	.....	45,750
Outside	.....	6,250	.....	.....	6,250
	$145,750	$65,000			$162,000

(a) For calculation see Case T in Chapter I (page 24).

Case Bc2

Same as Case Bc1 if Company Y had bought its own stock at 90 instead of at par.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 82,500	$61,000	.....	.....	$143,500
Y's Stock	37,500	.....	.....	$37,500	.....
Goodwill	10,000	5,000	$ 4,500	.....	19,500
	$130,000	$66,000			$163,000
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	30,000	19,500	3,000	.....	46,500
Outside (b)	.....	6,500	.....	.....	6,500
	$130,000	$66,000			$163,000

(a) $3/5 \times \$5,000 = \$3,000$

(b) $\frac{100}{500 - 100} \times (\$5,000 + \$10,000 + \$1,000 + \$10,000) = \$6,500$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 82,500	$61,000	.....	.....	$143,500
Y's Stock (a)	54,000	.....	.....	$54,000	.....
Goodwill	10,000	5,000	$ 4,500	.....	19,500
	$146,500	$66,000			$163,000
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	46,500	19,500	19,500	.....	46,500
Outside	.....	6,500	.....	.....	6,500
	$146,500	$66,000			$163,000

(a) The calculation of the carrying value of the investment is:

Purchase Price		$37,500
1924 Profits ($3/5 \times \$10,000$)		6,000
Gain on Purchase of Treasury Stock:		
Owned Surplus after Sale [$3/4 \times (\$5,000 + \$10,000 + \$1,000)$]	$12,000	
Owned Surplus before Sale [$3/5 \times (\$5,000 + \$10,000)$]	9,000	3,000
1925 Profits ($3/4 \times \$10,000$)		7,500
Carrying Value		$54,000

Case Bc3

Same as Case Bc1 if Company Y had bought its own stock at 138 instead of at par.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 82,500	$56,200	.....	.....	$138,700
Y's Stock	37,500	.....	.....	$37,500	.....
Goodwill	10,000	5,000	$ 4,500	.....	19,500
	$130,000	$61,200			$158,200
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	30,000	15,900	3,000	.....	42,900
Outside (b)	.....	5,300	.....	.....	5,300
	$130,000	$61,200			$158,200

(a) $3/5 \times \$5,000 = \$3,000$

(b) $\frac{100}{500 - 100} \times (\$5,000 + \$10,000 - \$3,800 + \$10,000) = \$5,300$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 82,500	$56,200	.....	.....	$138,700
Y's Stock (a)	50,400	.....	.....	$50,400	.....
Goodwill	10,000	5,000	$ 4,500	.....	19,500
	$142,900	$61,200			$158,200
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	42,900	15,900	15,900	.....	42,900
Outside	.....	5,300	.....	.....	5,300
	$142,900	$61,200			$158,200

(a) The calculation of the carrying value of the investment is:

Purchase Price	$37,500	
1924 Profits ($3/5 \times \$10,000$)	6,000	$43,500
Loss on Purchase of Treasury Stock:		
Owned Surplus before Sale [$3/5 \times (\$5,000 + \$10,000)$]	$ 9,000	
Owned Surplus after Sale [$3/4 \times (\$5,000 + \$10,000 - \$3,800)$]	8,400	600
		$42,900
1925 Profits ($3/4 \times \$10,000$)		7,500
Carrying Value		$50,400

Case C

	Co. X	Co. Y	Co. Z		Co. X	Co. Y	Co. Z
Other Assets.	$100,000	$50,000	$50,000	Capital Stock.	$100,000	$50,000	$50,000
Goodwill. . . .	10,000	10,000	5,000	Surplus.	10,000	10,000	5,000
	$110,000	$60,000	$55,000		$110,000	$60,000	$55,000

Assuming that since January 1, 1924, the date of the above balance sheets, each company has made an annual operating profit of $10,000, make a consolidated balance sheet as of January 1, 1926, if the following open market stock purchases were made:

Date	Purchaser	Shares Purchased	Price
January 1, 1924	Co. X	300 Co. Y	125
January 1, 1925	Co. Y	300 Co. Z	130
January 1, 1926	Co. Z	100 Co. Z	125
January 1, 1926	Co. Y	100 Co. Y	135

Solution—Cost Value Method

The family tree, under the Cost Value Method, is shown in Fig. 24.

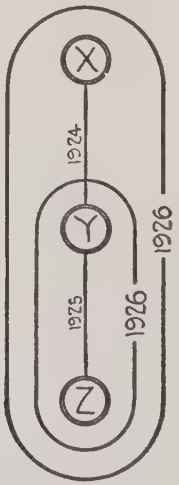

Fig. 24

	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$17,500	$57,500	.....	.....	$75,000
Z's Stock	39,000	.....	.....	$39,000	.....
Goodwill	10,000	5,000	.....	.....	15,000
	$66,500	$62,500			$90,000
Capital Stock:					
Inside	$40,000	$30,000	$30,000	.....	$40,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	26,500	16,875	9,000	.....	34,375
Outside	.....	5,625	.....	.....	5,625
	$66,500	$62,500			$90,000

(a) $3/5 \times (\$5,000 + \$10,000) = \$9,000$

	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 82,500	$75,000	.....	.....	$157,500
Y's Stock	37,500	.....	.....	$37,500	.....
Goodwill	10,000	15,000	$ 1,500	.....	26,500
	$130,000	$90,000			$184,000
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	30,000	25,781	6,000	.....	49,781
Outside	.....	8,594	.....	.....	8,594
Z's Minority	.....	15,625	.....	.....	15,625
	$130,000	$90,000			$184,000

(a) $3/5 \times \$10,000 = \$6,000$

Solution—Actual Value Method

The family tree is the same under both the Cost Value and Actual Value Methods (Fig. 24).

	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$17,500	$57,500	.....	.....	$75,000
Z's Stock (a)	46,875	.....	.....	$46,875	.....
Goodwill	10,000	5,000	.....	.....	15,000
	$74,375	$62,500			$90,000
Capital Stock:					
Inside	$40,000	$30,000	$30,000	.....	$40,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	34,375	16,875	16,875	.....	34,375
Outside	.....	5,625	.....	.....	5,625
	$74,375	$62,500			$90,000

(a) The calculation of the carrying value is:

Purchase Price		$39,000
Share of Co. Z's Individual Profits:		
1925 (3/5 × $10,000)		6,000
Ownership in Co. Z's Surplus:		
After Purchase (3/4 × $22,500)	$16,875	.....
Before Purchase (3/5 × $25,000)	15,000	1,875
Carrying Value	.....	$46,875

	Co. X	Co. Y + Z	Eliminations		C. B. S.
Other Assets	$ 82,500	$75,000	.....	.....	$157,500
Y's Stock (a)	57,281	.....	.....	$57,281	.....
Goodwill	10,000	15,000	$1,500	.....	26,500
	$149,781	$90,000			$184,000
Capital Stock:					
Inside	$100,000	$30,000	30,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	49,781	25,781	25,781	.....	49,781
Outside	.....	8,594	.....	.....	8,594
Z's Minority	.....	15,625	.....	.....	15,625
	$149,781	$90,000			$184,000

(a) The calculation of the carrying value is:

Purchase Price		$37,500
Share of Co. Y's Individual Profits:		
1924 (3/5 × $10,000)		6,000
1925 (3/5 × $10,000)		6,000
Share of Co. Z's Individual Profits:		
1925 (3/5 × 3/5 × $10,000)		3,600
Share of Gain on Purchase of Co. Z's Treasury Stock:		
3/5 × $1,875 (see footnote (a) above)		1,125
Gain on Purchase of Co. Y's Treasury Stock:		
3/4 × $34,375 (Co. Y's Consolidated Surplus)	= $25,781	
3/5 × ($34,375 + $3,500)	= 22,725	3,056
Carrying Value		$57,281

The chief point of interest to Case C is the demonstration of the fact that, under the Actual Value Method, the grandparent must adjust its books whenever the grandson sells treasury stock above or below the book value of its outstanding stock.

CHAPTER XIV

DIRECT SURPLUS ADJUSTMENTS

The effect of direct surplus adjustments on consolidated balance sheet technique depends on whether or not the adjustments change the surplus of the subsidiary at the date it was acquired by the holding company.

Direct Adjustments not Changing Surplus at Acquisition

While direct adjustments to surplus should not be shown in the Profit and Loss account, they have the same effect on a consolidated balance sheet as current profits and losses, if they do not change the surplus of the subsidiary at date of acquisition.

Rule XXIX

Under both the Cost Value and Actual Value Methods, determine the carrying value of a controlling investment in the stock of a subsidiary, and analyze and eliminate this carrying value by treating direct surplus adjustments not changing the subsidiary's surplus at acquisition as though they were current profits and losses.

Cases.—The chief variations in the underlying conditions regarding direct surplus adjustments which do not change the subsidiary's surplus at acquisition are:

A. Debit adjustments.
B. Credit adjustments.

Case A

	Co. X	Co. Y		Co. X	Co. Y
Other Assets.....	$100,000	$50,000	Capital Stock.....	$100,000	$50,000
Goodwill.....	10,000	5,000	Surplus.....	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets, Company X bought 400 shares of Company Y's stock at 125 on the open market. The 1925 Profit and Loss account of each company had a credit balance of $10,000. Company Y suffered a fire loss of $2,000 on June 30, 1925. Make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets.....	$ 60,000	$58,000	.....	.....	$118,000
Y's Stock.....	50,000	.....	.....	$50,000	.....
Goodwill.....	10,000	5,000	$ 6,000	.....	21,000
	$120,000	$63,000			$139,000
Capital Stock:					
Inside.....	$100,000	$40,000	40,000	.....	$100,000
Outside.....	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a).....	20,000	10,400	4,000	.....	26,400
Outside (b).....	.....	2,600	.....	.....	2,600
	$120,000	$63,000			$139,000

(a) $4/5 \times \$5,000 = \$4,000$
(b) $1/5 \times (\$5,000 + \$10,000 - \$2,000) = \$2,600$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets.....	$ 60,000	$58,000	.....	.....	$118,000
Y's Stock (a).....	56,400	.....	.....	$56,400	.....
Goodwill.....	10,000	5,000	$ 6,000	.....	21,000
	$126,400	$63,000			$139,000
Capital Stock:					
Inside.....	$100,000	$40,000	40,000	.....	$100,000
Outside.....	.....	10,000	.....	.....	10,000
Surplus:					
Inside.....	26,400	10,400	10,400	.....	26,400
Outside.....	.....	2,600	.....	.....	2,600
	$126,400	$63,000			$139,000

(a) $\$50,000 + [4/5 \times (\$10,000 - \$2,000)] = \$56,400$

Case B

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	Capital Stock	$100,000	$50,000
Goodwill	10,000	5,000	Surplus	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets, Company X bought 400 shares of Company Y's stock at 125 on the open market. The 1925 Profit and Loss account of each company had a credit balance of $10,000. Company Y made on June 30, 1925, an extraneous profit of $3,000 on a sale of some real estate not used in the business. Make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 60,000	$63,000	.....	.....	$123,000
Y's Stock	50,000	.....	.....	$50,000	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$120,000	$68,000			$144,000
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	20,000	14,400	4,000	.....	30,400
Outside (b)	.....	3,600	.....	.....	3,600
	$120,000	$68,000			$144,000

(a) $4/5 \times \$5,000 = \$4,000$
(b) $1/5 \times (\$5,000 + \$10,000 + \$3,000) = \$3,600$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 60,000	$63,000	.....	.....	$123,000
Y's Stock (a)	60,400	.....	.....	$60,400	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$130,400	$68,000			$144,000
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	30,400	14,400	14,400	.....	30,400
Outside	.....	3,600	.....	.....	3,600
	$130,400	$68,000			$144,000

(a) $\$50,000 + [4/5 \times (\$10,000 + \$3,000)] = \$60,400$

Direct Adjustments Changing Surplus at Acquisition

On the grounds of expediency, minor direct adjustments to the subsidiary's surplus at date it was acquired by the holding company should not be allowed to affect consolidated goodwill. Accordingly, all minor direct surplus adjustments should be regarded as changes in surplus since acquisition. Important direct adjustments to the subsidiary's surplus at acquisition must, however, be reflected in consolidated goodwill.

Rule XXX

In determining the carrying value of a controlling investment in the stock of a subsidiary, and in analyzing and eliminating this carrying value, ignore important direct surplus adjustments to the subsidiary's surplus at date it was acquired by the holding company, except that such adjustments must be considered in analyzing the carrying value under the Cost Value Method.

Govern minor direct adjustments to the subsidiary's surplus at date it was acquired by the holding company under Rule XXIX.

Cases.—The chief variations in the underlying conditions regarding direct adjustments changing the subsidiary's surplus at date of acquisition are:

A. Important adjustments:
   (a) Debit adjustments.
   (b) Credit adjustments.
B. Minor adjustments.

Case Aa

	Co. X	Co. Y		Co. X	Co. Y
Other Assets.....	$100,000	$50,000	Capital Stock.....	$100,000	$50,000
Goodwill.....	10,000	5,000	Surplus.....	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets, Company X bought 400 shares of Company Y's stock at 125 on the open market. The 1925 Profit and Loss account of each company had a credit balance of $10,000. Assuming that Company Y has ignored a depreciation expense of $1,000 during each of the last three years, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 60,000	$57,000	.....	.....	$117,000
Y's Stock	50,000	.....	.....	$50,000	.....
Goodwill	10,000	5,000	$ 7,600	.....	22,600
	$120,000	$62,000			$139,600
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	20,000	9,600	2,400	.....	27,200
Outside (b)	.....	2,400	.....	.....	2,400
	$120,000	$62,000			$139,600

(a) $4/5 \times (\$5,000 - \$2,000) = \$2,400$
(b) $1/5 \times (\$5,000 + \$10,000 - \$3,000) = \$2,400$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 60,000	$57,000	.....	.....	$117,000
Y's Stock (a)	57,200	.....	.....	$57,200	.....
Goodwill	10,000	5,000	$ 7,600	.....	22,600
	$127,200	$62,000			$139,600
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	27,200	9,600	9,600	.....	27,200
Outside	.....	2,400	.....	.....	2,400
	$127,200	$62,000			$139,600

(a) $\$50,000 + [4/5 \times (\$10,000 - \$1,000)] = \$57,200$

Case Ab

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	Capital Stock	$100,000	$50,000
Goodwill	10,000	5,000	Surplus	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets, Company X bought 400 shares of Company Y's stock at 125 on the open market. The 1925 Profit and Loss account of each company had a credit balance of $10,000. Assuming that during each of the years 1924 and 1925 Company Y had written off additions and betterments of $1,000 to the Profit and Loss account, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 60,000	$62,000	.....	.....	$122,000
Y's Stock	50,000	.....	.....	$50,000	.....
Goodwill	10,000	5,000	$ 5,200	.....	20,200
	$120,000	$67,000			$142,200
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	20,000	13,600	4,800	.....	28,800
Outside (b)	.....	3,400	.....	.....	3,400
	$120,000	$67,000			$142,200

(a) $4/5 \times (\$5,000 + \$1,000) = \$4,800$
(b) $1/5 \times (\$5,000 + \$10,000 + \$2,000) = \$3,400$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 60,000	$62,000	.....	.....	$122,000
Y's Stock (a)	58,800	.....	.....	$58,800	.....
Goodwill	10,000	5,000	$ 5,200	.....	20,200
	$128,800	$67,000			$142,200
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	28,800	13,600	13,600	.....	28,800
Outside	.....	3,400	.....	.....	3,400
	$128,800	$67,000			$142,200

(a) $\$50,000 + [4/5 \times (\$10,000 + \$1,000)] = \$58,800$

Case B

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	Capital Stock	$100,000	$50,000
Goodwill	10,000	5,000	Surplus	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets, Company X bought 400 shares of Company Y's stock at 125 on the open market. The 1925 Profit and Loss account for each company had a credit balance of $10,000. Included in Company Y's assets on January 1, 1925, was a $10 note of an insolvent firm, declared bankrupt on December 1, 1924, which did not pay its creditors anything, and on June 30, 1925, a former customer paid a debt of $5 which had been written off as bad in 1923. Make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 60,000	$59,995	.....	.....	$119,995
Y's Stock	50,000	.....	.....	$50,000	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$120,000	$64,995			$140,995
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	20,000	11,996	4,000	.....	27,996
Outside (b)	.....	2,999	.....	.....	2,999
	$120,000	$64,995			$140,995

(a) $4/5 \times \$5{,}000 = \$4{,}000$
(b) $1/5 \times (\$5{,}000 + \$10{,}000 - \$10 + \$5) = \$2{,}999$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 60,000	$59,995	.....	.....	$119,995
Y's Stock (a)	57,996	.....	.....	$57,996	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$127,996	$64,995			$140,995
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	27,996	11,996	11,996	.....	27,996
Outside	.....	2,999	.....	.....	2,999
	$127,996	$64,995			$140,995

(a) $\$50{,}000 + [4/5 \times (\$10{,}000 - \$10 + \$5)] = \$57{,}996$

CHAPTER XV

DIRECT GOODWILL ADJUSTMENTS

The elimination entries for intercompany stock eliminate the book value (acquisition value under Cost Value Method and present value under Actual Value Method) of the stock and transfer the goodwill purchased at acquisition from the Investment account into either (a) the Goodwill account or (b) the Reserve for Revaluation of Assets account, or (c) the Capital Surplus account. Care must be taken to prevent direct goodwill adjustments, i.e., goodwill purchased, sold, and arbitrarily written up and down, from affecting this transfer.

Rule XXXI

Do not allow positive or negative goodwill purchased by a subsidiary since the date it was acquired by the holding company to affect the eliminating entries for the carrying value of the controlling stock investment.

Rule XXXII

When the positive or negative goodwill of a subsidiary at the date it was acquired by the holding company is later sold, analyze and eliminate the carrying value of the controlling stock investment as usual.

Rule XXXIII

Reverse on the working papers for the individual corporations all arbitrary adjustments of goodwill, whether debit or credit, before starting to prepare the consolidated working papers.

Cases.—The chief variations concerning direct goodwill adjustments on the books of the subsidiary subsequent to its acquisition by the holding company are

A. Goodwill purchased:
  (a) Positive goodwill
  (b) Negative goodwill
B. Goodwill sold:
  (a) Under grandson relationship:
    1. Positive goodwill
    2. Negative goodwill
  (b) Under son relationship:
    1. Positive goodwill
    2. Negative goodwill
C. Arbitrary adjustments:
  (a) Write-up
  (b) Write-down

Case Aa

	Co. X	Co. Y	Co. Z		Co. X	Co. Y	Co. Z
Other Assets	$100,000	$80,000	$40,000	Capital Stock	$100,000	$80,000	$40,000
Goodwill	10,000	5,000	4,000	Surplus	10,000	5,000	4,000
	$110,000	$85,000	$44,000		$110,000	$85,000	$44,000

On January 1, 1924, the date of the above balance sheets, Company X bought 700 shares of Company Y's stock at 90 on the open market. On January 1, 1925, Company Y bought all of Company Z's stock at 150 on the open market and then surrendered the charter of Company Z. If each company had an annual operating profit of $10,000 during the years it was in existence, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets (a)	$ 57,000	$ 90,000	.....	.....	$147,000
Y's Stock	63,000	.....	.....	$63,000	.....
Goodwill (b)	10,000	15,000	.....	5,000	20,000
	$130,000	$105,000			$167,000

(a) ($80,000 + $20,000) + ($40,000 + $10,000) − $60,000 = $90,000
(b) $5,000 + $4,000 + [$60,000 − ($40,000 + $4,000 + $10,000)] = $15,000

	Co. X	Co. Y	Eliminations		C. B. S.
Capital Stock:					
Inside	$100,000	$ 70,000	$70,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (c)	30,000	21,875	4,375	.....	47,500
Outside (d)	.....	3,125	.....	.....	3,125
Revaluation Reserve	.....	.....	.....	$6,375	6,375
	$130,000	$105,000			$167,000

(c) The calculation of the elimination entries is:

Par	$70,000	
Surplus	4,375	(7/8 × $5,000)
Goodwill:		
Negative	*5,000	(all goodwill Co. Y had 1/1/24)
Reserve	*6,375	($11,375 − $5,000)
	$63,000	

* Denotes negative.

(d) 1/8 × ($5,000 + $10,000 + $10,000) = $3,125

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 57,000	$ 90,000	.....	.....	$147,000
Y's Stock (a)	80,500	.....	.....	$80,500	.....
Goodwill (b)	10,000	15,000	.....	5,000	20,000
	$147,500	$105,000			$167,000
Capital Stock:					
Inside	$100,000	$ 70,000	$70,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	47,500	21,875	21,875	.....	47,500
Outside	.....	3,125	.....	.....	3,125
Revaluation Reserve (c)	.....	.....	.....	6,375	6,375
	$147,500	$105,000			$167,000

(a) $63,000 + [7/8 × ($10,000 + $10,000)] = $80,500
(b) Eliminate all Company Y's goodwill as of January 1, 1924, i.e., $5,000
(c) [($70,000 + $21,875) − $80,500] − $5,000 = $6,375

The Reserve for Revaluation of Assets account must be maintained at acquisition figures unless there is positive evidence that the inflation has been written off the books.

Case Ab

Same as Case Bal if Company Y purchased Company Z's stock at 120 instead of at 150 and Company X had bought Company Y's stock at 145 instead of at 90.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets (a)	$ 18,500	$102,000	.....	.....	$120,500
Y's Stock	101,500	.....	.....	$101,500	.....
Goodwill (b)	10,000	5,000	$27,125	.....	42,125
	$130,000	$107,000			$162,625
Capital Stock:					
Inside	$100,000	$ 70,000	70,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (c)	30,000	21,875	4,375	.....	47,500
Outside (d)	.....	3,125	.....	.....	3,125
Revaluation Reserve (e)	.....	2,000	.....	.....	2,000
	$130,000	$107,000			$162,625

(a) ($80,000 + $20,000) + ($40,000 + $10,000) − $48,000 = $102,000
(b) The calculation of Co. Y's elimination entries at date of merger is:

Par	$40,000
Surplus	14,000
Goodwill:	
Negative	*4,000
Reserve	*2,000
	$48,000

* Denotes deficit.

(c) $7/8 \times \$5,000 = \$4,375$
(d) $1/8 \times (\$5,000 + \$10,000 + \$10,000) = \$3,125$
(e) Computation shown in (b)

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 18,500	$102,000	.....	.....	$120,500
Y's Stock (a)	119,000	.....	.....	$119,000	.....
Goodwill	10,000	5,000	$27,125	.....	42,125
	$147,500	$107,000			$162,625
Capital Stock:					
Inside	$100,000	$ 70,000	70,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	47,500	21,875	21,875	.....	47,500
Outside	.....	3,125	.....	.....	3,125
Revaluation Reserve	.....	2,000	.....	.....	2,000
	$147,500	$107,000			$162,625

(a) $\$101,500 + [7/8 \times (\$10,000 + \$10,000)] = \$119,000$

In both of the above solutions the balance of the Reserve for Revaluation of Assets account should either be deducted

from the fictitiously valued asset carried under Other Assets, or, if all assets are correctly valued, carried to a Capital Surplus account.

Case Ba1

	Co. X	Co. Y	Co. Z		Co. X	Co. Y	Co. Z
Other Assets	$100,000	$50,000	$40,000	Capital Stock	$100,000	$50,000	$40,000
Goodwill...	10,000	5,000	4,000	Surplus....	10,000	5,000	4,000
	$110,000	$55,000	$44,000		$110,000	$55,000	$44,000

On January 1, 1923, the date of the above balance sheets, Company Y purchased 300 shares of Company Z's stock at 120 on the open market. On January 1, 1924, Company X purchased 400 shares of Company Y's stock at 110 on the open market. On January 1, 1925, Company Y sold its holdings in Company Z's stock to F. E. Long for $39,000. Make a consolidated balance sheet of Company X and Company Y as of January 1, 1926, if each company made an operating profit of $10,000 during each of the years in question.

Solution—Cost Value Method

Jan. 1, 1924	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$24,000	$50,000	.....	.....	$74,000
Z's Stock	36,000	.....	.....	$36,000	.....
Goodwill	5,000	4,000	$ 3,000	.....	12,000
	$65,000	$54,000			$86,000
Capital Stock:					
Inside	$50,000	$30,000	30,000	.....	$50,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	15,000	10,500	3,000	.....	22,500
Outside	.....	3,500	.....	.....	3,500
	$65,000	$54,000			$86,000

(a) $3/4 \times \$4,000 = \$3,000$

The consolidated balance sheet of Company Y and Company Z as of January 1, 1924, is necessary under the Cost Value Method as Company X bought into the consolidated surplus ($22,500).

Jan. 1, 1926	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 86,000	$83,000	.....	.....	$169,000
Y's Stock	44,000	.....	.....	$44,000	.....
Goodwill	10,000	5,000	.....	5,000	10,000
	$140,000	$88,000			$179,000
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	40,000	30,400	18,000	.....	52,400
Outside	.....	7,600	.....	.....	7,600
Revaluation Reserve	.....	.....	.....	9,000	9,000
	$140,000	$88,000			$179,000

(a) The calculation of the eliminating entry is:

Par Purchased	$40,000	
Surplus Purchased (4/5 × $22,500)	18,000	$58,000
Purchase Price		44,000
Negative Goodwill		$14,000
Co. Y's Individual Goodwill	$5,000	.....
Revaluation Reserve	9,000	14,000

Solution—Actual Value Method

Jan. 1, 1926	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 86,000	$83,000	.....	.....	$169,000
Y's Stock (a)	56,400	.....	.....	$56,400	.....
Goodwill	10,000	5,000	.....	5,000	10,000
	$152,400	$88,000			$179,000
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (b)	52,400	30,400	30,400	.....	52,400
Outside	.....	7,600	.....	.....	7,600
Revaluation Reserve	.....	.....	.....	9,000	9,000
	$152,400	$88,000			$179,000

(a) The calculation of the carrying value is:

Purchase Price			$44,000
Share of Co. Y's 1924 Profits:			
Operating Profits		$10,000	
Share in Co. Z's Profits		7,500	
		$17,500	
Loss on Sale of Stock:			
Purchase Price	$36,000		
Share 1923 Profits	7,500		
Share 1924 Profits	7,500		
	$51,000		
Sales Price	39,000	12,000	
		$ 5,500	

4/5 × $5,500	4,400
Share of Co. Y's 1925 Profits (4/5 × $10,000)	8,000
Carrying Value	$56,400

(b) The calculation of the elimination entries is:

Par Owned	$40,000	
Surplus Owned	30,400	$70,400
Carrying Value		56,400
Negative Goodwill		$14,000
Co. Y's Individual Goodwill	$5,000	.....
Revaluation Reserve	9,000	14,000

Case Ba2

Same as Case Ba1 if Company Y purchased Company Z's stock at 80 instead of at 120 and Company X purchased Company Y's stock at 150 instead of at 110.

Solution—Cost Value Method

Jan. 1, 1924	Co. Y	Co. Z	Eliminations		C. B. S.
Other Assets	$36,000	$50,000	.....	.....	$86,000
Z's Stock	24,000	.....	.....	$24,000	.....
Goodwill	5,000	4,000	.....	4,000	5,000
	$65,000	$54,000			$91,000
Capital Stock:					
Inside	$50,000	$30,000	$30,000	.....	$50,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	15,000	10,500	3,000	.....	22,500
Outside	.....	3,500	.....	.....	3,500
Revaluation Reserve	.....	.....	.....	5,000	5,000
	$65,000	$54,000			$91,000

The consolidated balance sheet of Company Y and Company Z as of January 1, 1924, is necessary under the Cost Value Method as Company X bought into the consolidated surplus ($22,500).

Jan. 1, 1926	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$ 95,000	.....	.....	$165,000
Y's Stock	60,000	.....	.....	$60,000	.....
Goodwill	10,000	5,000	$ 2,000	.....	17,000
	$140,000	$100,000			$182,000

Capital Stock:	Co. X	Co. Y	Eliminations		C. B. S.
Inside	$100,000	$ 40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	40,000	40,000	18,000	.....	62,000
Outside	.....	10,000	.....	.....	10,000
	$140,000	$100,000			$182,000

(a) $4/5 \times \$22,500 = \$18,000$

Solution—Actual Value Method

Jan. 1, 1926	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$ 95,000	.....	.....	$165,000
Y's Stock (a)	82,000	.....	.....	$82,000	.....
Goodwill	10,000	5,000	$ 2,000	.....	17,000
	$162,000	$100,000			$182,000
Capital Stock:					
Inside	$100,000	$ 40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	62,000	40,000	40,000	.....	62,000
Outside	.....	10,000	.....	.....	10,000
	$162,000	$100,000			$182,000

(a) The calculation of the carrying value is:

Purchase Price			$60,000
Share of Co. Y's 1924 Profits:			
Operating Profits		$10,000	
Share of Co. Z's Profits		7,500	
Loss on Sale of Stock:			
Purchase Price	$24,000		
Share 1923 Profits	7,500		
Share 1924 Profits	7,500		
	$39,000		
Sales Price	39,000	nil	
		$17,500	
$4/5 \times \$17,500$			14,000
Share of Co. Y's 1925 Profits ($4/5 \times \$10,000$)			8,000
Carrying Value			$82,000

Case Bb1

	Co. X	Co. Y Branch A	Co. Y Branch B		Co. X	Co. Y
Cash	$ 75,000	$30,000	$ 1,000	Capital Stock	$100,000	$50,000
Other Assets	25,000	.....	19,000	Surplus	10,000	5,000
Goodwill	10,000	.....	5,000			
	$110,000	$30,000	$25,000		$110,000	$55,000

On January 1, 1926, the date of the above balance sheets, Company X bought 400 shares of Company Y's stock, a cor-

poration operating two branches, at 80 on the open market. Later on the same day, Company Y sold its Branch B for $15,000 cash. If there were no additional transactions, make a consolidated balance sheet as of the close of the day on the assumption that Branch A has no goodwill.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Cash	$ 43,000	$45,000	.....	.....	$ 88,000
Other Assets	25,000	.....	.....	.....	25,000
Y's Stock (a)	32,000	.....	.....	$32,000	.....
Goodwill	10,000	.....	.....	.....	10,000
	$110,000	$45,000			$123,000
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	10,000	*4,000	4,000	12,000	14,000
Outside	.....	*1,000	.....	.....	*1,000
	$110,000	$45,000			$123,000

* Denotes deficit.

(a) The calculation of the elimination entries is:

Par	$40,000	
Surplus	4,000	(4/5 × $5,000)
Goodwill	*12,000	
	$32,000	

* Denotes negative.

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Cash	$ 43,000	$45,000	.....	.....	$ 88,000
Other Assets	25,000	.....	.....	.....	25,000
Y's Stock (a)	24,000	.....	.....	$24,000	.....
Goodwill	10,000	.....	.....	.....	10,000
	$102,000	$45,000			$123,000
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (b)	2,000	*4,000	.....	16,000	14,000
Outside	.....	*1,000	.....	.....	*1,000
	$102,000	$45,000			$123,000

* Denotes deficit.

(a) $32,000 − [4/5 × ($25,000 − $15,000)] = $24,000

(b) The calculation of the eliminating entries is:

Par	$40,000
Surplus	*4,000
Goodwill	*12,000
	$24,000

* Denotes negative

As there can be no revaluation of Company Y's cash, the negative goodwill constitutes capital surplus.

Case Bb2

Same as Case Bb1 if Company X had paid $120 a share instead of $80 and if Company Y had realized $35,000 for Branch B instead of $15,000.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Cash	$ 27,000	$65,000	.....	.....	$ 92,000
Other Assets	25,000	.....	.....	.....	25,000
Y's Stock (a)	48,000	.....	.....	$48,000	.....
Goodwill	10,000	.....	$ 4,000	.....	14,000
	$110,000	$65,000			$131,000
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	10,000	12,000	4,000	.....	18,000
Outside	.....	3,000	.....	.....	3,000
	$110,000	$65,000			$131,000

(a) The calculation of the eliminating entries is:

Par	$40,000	
Surplus	4,000	(4/5 × $5,000)
Goodwill	4,000	
	$48,000	

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Cash	$ 27,000	$65,000	.....	.....	$ 92,000
Other Assets	25,000	.....	.....	.....	25,000
Y's Stock (a)	56,000	.....	.....	$56,000	.....
Goodwill	10,000	.....	$ 4,000	.....	14,000
	$118,000	$65,000			$131,000

(a) $48,000 + [4/5 × ($35,000 − $25,000)] = $56,000

	Co. X	Co. Y	Eliminations		C. B. S.
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (b)	18,000	12,000	12,000	.....	18,000
Outside	.....	3,000	.....	.....	3,000
	$118,000	$65,000			$131,000

(b) The calculation of the eliminating entries is:

Par	$40,000
Surplus	12,000
Goodwill	4,000
	$56,000

Case Ca

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$ 50,000	$50,000	Capital Stock	$100,000	$50,000
Y's Stock	50,000	.....	Surplus	10,000	10,000
Goodwill	10,000	10,000			
	$110,000	$60,000		$110,000	$60,000

Make a consolidated balance sheet as of January 1, 1926, the date of the above balance sheets, if Company X bought 400 out of the 500 shares of Company Y's stock at 125 on the open market on January 1, 1925. During 1925, each company made an operating profit of $10,000, and Company Y arbitrarily wrote up its goodwill $5,000.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 50,000	$50,000	.....	.....	$100,000
Y's Stock	50,000	.....	.....	$50,000	.....
Goodwill	10,000	5,000	$14,000	.....	29,000
	$110,000	$55,000			$129,000
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	10,000	4,000	.....	4,000	18,000
Outside (b)	.....	1,000	.....	.....	1,000
	$110,000	$55,000			$129,000

(a) $4/5 \times [(\$10,000 + \$5,000) - \$10,000] = \$4,000$
(b) $1/5 \times (\$10,000 - \$5,000) = \$1,000$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 50,000	$50,000	.....	.....	$100,000
Y's Stock (a)	58,000	.....	.....	$58,000	.....
Goodwill	10,000	5,000	$14,000	.....	29,000
	$118,000	$55,000			$129,000
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	18,000	4,000	4,000	.....	18,000
Outside	.....	1,000	.....	.....	1,000
	$118,000	$55,000			$129,000

(a) $\$50,000 + (4/5 \times \$10,000) = \$58,000$

Case Cb

Same as Case Ca if Company Y had arbitrarily written down its goodwill $5,000 instead of having written it up.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 50,000	$50,000	.....	.....	$100,000
Y's Stock	50,000	.....	.....	$50,000	.....
Goodwill	10,000	15,000	$ 6,000	.....	31,000
	$110,000	$65,000			$131,000
Capital Stock:					
Inside	$100,000	$40,000	40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	10,000	12,000	4,000	.....	18,000
Outside (b)	.....	3,000	.....	.....	3,000
	$110,000	$65,000			$131,000

(a) $4/5 \times [(\$10,000 + \$5,000) - \$10,000] = \$4,000$
(b) $1/5 \times (\$10,000 + \$5,000) = \$3,000$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 50,000	$50,000	.....	.....	$100,000
Y's Stock (a)	58,000	.....	.....	$58,000	.....
Goodwill	10,000	15,000	$ 6,000	.....	31,000
	$118,000	$65,000			$131,000

(a) $\$50,000 + (4/5 \times \$10,000) = \$58,000$

	Co. X	Co. Y	Eliminations		C. B. S.
Capital Stock:					
Inside	$100,000	$40,000	$40,000	.....	$100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	18,000	12,000	12,000	.....	18,000
Outside	.....	3,000	.....	.....	3,000
	$118,000	$65,000			$131,000

CHAPTER XVI

RESERVES

Since the surplus account of the subsidiary is the pivot used in preparing consolidated balance sheets, the classification of reserves is an uncommonly important point in ordinary accounting for students of consolidated balance sheets. Unfortunately, the classification of reserves is a much disputed subject. As a discussion of the pros and cons of the subject would be out of place here, the following chart given for use in preparing consolidated balance sheets has been made more detailed than necessary in the hope of clarifying the subject.

Classification of Reserves

A. Valuation Reserves—either debit or credit balance:
- (a) Deducted from assets—credit balance
  - I. Used during fiscal year
    - (Depreciation)
    - (Depletion)
    - (Bad debts)
  - II. Not used during fiscal year
    1. Set up at end of year and closed at start of next year
       - (Sales discounts)
    2. Set up at start of year and adjusted at end of year
       - (Interest on investment)
    3. Adjusted at end of year
       - (Market fluctuations)
       - (Unrealized intercompany profits)
- (b) Deducted from liabilities—debit balance
  - (Purchase discounts)

(c) Added to assets—debit balance
(Cotton or grain futures)

B. Liability Reserves—credit balance:
(a) Definite in amount
(General taxes)
(Accrued wages)
(Accrued rent)
(b) Indefinite in amount
(Income taxes)
(Repairs)

C. Net Worth Reserves—either credit balance or no balance:
(a) Recorded on books—credit balance
I. Appreciation
II. Contingency
(Fire insurance)
(Accidents)
(Guarantees)
(Obsolescence)
(Pending lawsuits)
(Flood loss)
III. True Surplus
(Sinking fund)
(Plant extension)
(Betterments and improvements)
(Working capital)
(b) Not recorded on books—no balance
I. Understatement of assets
II. Overstatement of liabilities
III. Overstatement of valuation reserves

To overlook the matter of appreciation of a subsidiary's assets as of date of acquisition is incorrect as it inflates the goodwill. The individual balance sheets of the constituent companies should give correct values even if an appraisal is necessary to secure these values. Of course, all unrealized increases in values must be credited to a Reserve for Appreciation account instead of the ordinary Surplus account.

While true contingency reserves are a part of net worth, care must be taken to be sure that the reserves cover contingent rather than actual liabilities. For instance, a Reserve for Accidents is a net worth reserve if the accidents are only prospective accidents, but is a liability reserve if the accidents have actually occurred.

While frequently condoned, secret reserves are distinctly incorrect on consolidated balance sheets as they inflate the goodwill, if they affect the subsidiary's surplus at date of acquisition. The present author holds that a balance sheet is not worth the paper it is written on if it is not correct. To understate asset values is incorrect in principle, is frequently used to defraud the government, is often the method used by directors of playing the stock market to the disadvantage of the stockholders of open corporations, and is dangerous to the stockholders of close corporation (witness the large sums of money spent for appraisals as of March 1, 1913, for invested capital purposes).

Rule XXXIV

Treat non-proprietorship reserves as assets and liabilities on the consolidated working papers, book the secret reserves and combine the net worth reserves into surplus before allocating the latter to the majority and minority interests.

In preparing the formal consolidated balance sheet from the working papers, unite the valuation reserves with their related accounts, list the liability reserves among the liabilities, and set up (under the majority interest heading) the net worth reserves out of Surplus-Inside.

Illustrative Problem.—Make a consolidated balance sheet as of January 1, 1926, the date of the following post-closing trial balances.

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$ 50,000	$60,000	Reserves for:		
Y's Stock	50,000	.....	Depreciation	$ 1,000	$ 2,000
Goodwill	10,000	4,000	Income Taxes	2,000	3,000
			Sinking Fund	3,000	4,000
			Capital Stock	100,000	50,000
			Surplus	4,000	5,000
	$110,000	$64,000		$110,000	$64,000

On the date that Company X purchased 400 out of the 500 shares of Company Y's stock, the balances of each of the reserves and the surplus of the latter were $1,000 less than the amounts given above.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 50,000	$60,000	.....	.....	$110,000
Y's Stock (a)	50,000	.....	.....	$50,000	.....
Goodwill	10,000	4,000	$ 4,400	.....	18,400
	$110,000	$64,000			$128,400
Reserves for:					
Depreciation	$ 1,000	$ 2,000	.....	.....	$ 3,000
Income Taxes	2,000	3,000	.....	.....	5,000
Capital Stock:					
Inside	100,000	40,000	40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus, etc.:					
Inside (b)	7,000	7,200	5,600	.....	8,600
Outside (c)	.....	1,800	.....	.....	1,800
	$110,000	$64,000			$128,400

(a) The calculation of the eliminating entries is:

Par	$40,000	
Surplus	5,600	$\{4/5 \times [(\$4,000 - \$1,000) + (\$5,000 - \$1,000)]\}$
Goodwill	4,400	
	$50,000	

(b) $\$3,000 + \$4,000 = \$7,000$
(c) $1/5 \times (\$4,000 + \$5,000) = \$1,800$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 50,000	$60,000	.....	.....	$110,000
Y's Stock (a)	51,600	.....	.....	$51,600	.....
Goodwill	10,000	4,000	$ 4,400	.....	18,400
	$111,600	$64,000			$128,400

(a) $\$50,000 + [4/5 \times (\$1,000 + \$1,000)] = \$51,600$

	Co. X	Co. Y	Eliminations		C. B. S.
Reserves for:					
Depreciation	$ 1,000	$ 2,000	.....	.....	$ 3,000
Income Taxes	2,000	3,000	.....	.....	5,000
Capital Stock:					
Inside	100,000	40,000	$40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus, etc.:					
Inside	8,600	7,200	7,200	.....	8,600
Outside	.....	1,800	.....	.....	1,800
	$111,600	$64,000			$128,400

The formal consolidated balance sheet from both of the above working sheets is:

COMPANY X AND ITS SUBSIDIARY, COMPANY Y

CONSOLIDATED BALANCE SHEET

January 1, 1926

Other Assets	$110,000	
Less Reserve for Depreciation	3,000	$107,000
Goodwill		18,400
		$125,400
Reserve for Income Tax		$ 5,000
Majority Interests:		
Capital Stock	$100,000	
Surplus	1,600	
Reserve for Sinking Fund	7,000	108,600
Minority Interest:		
Capital Stock	$ 10,000	
Surplus	1,800	11,800
		$125,400

CHAPTER XVII

TREASURY BONDS

Since treasury bonds are not assets, they must be carried at par or the Surplus account will be misstated. Treasury bonds of both the holding company and subsidiary may be shown on the consolidated balance sheet as a deduction, at par, from the authorized bond issue.

Care must be taken to have the constituent companies correctly record transactions involving the purchase and sale of treasury bonds. When issued bonds are purchased, the transaction is complete and the difference between the purchase price and the book value of the bonds must be carried to the Profit and Loss account. Selling treasury bonds is a new transaction, and no profit or loss can arise from a transaction which merely incurs an obligation.

Rule XXXV

Cancel all treasury bonds on the working papers of the individual corporations at date holding company acquired control of subsidiary and at present before starting the preparation of consolidated working papers.

Eliminate the intercompany stock accounts as though the treasury bonds were legally cancelled.

If desired, re-establish at par the treasury bonds of the holding and subsidiary companies.

Cases.—Ignoring the fact that the accounts Premium on Treasury Bonds and Discount on Treasury Bonds may be used

in connection with treasury bonds, the chief variations in the underlying conditions regarding treasury bonds are:

A. On books of holding company:

(a) Recorded at book value.
(b) Recorded at less than book value.
(c) Recorded at more than book value.

B. On books of subsidiary:

(a) Held at date of acquisition of control and still held.
1. Recorded at book value.
2. Recorded at less than book value.
3. Recorded at more than book value.

(b) Held at date of acquisition but subsequently sold.
1. Recorded at book value.
2. Recorded at less than book value.
3. Recorded at more than book value.

(c) Purchased after date of acquisition of control.
1. Recorded at book value.
2. Recorded at less than book value.
3. Recorded at more than book value.

Case Aa

	Co. X	Co. Y		Co. X	Co. Y
Other Assets.....	$124,000	$50,000	Bonds, 6%, 10 yrs.	$ 20,000	.....
Goodwill.....	10,000	5,000	Bond Premium....	4,000	.....
			Capital Stock.....	100,000	$50,000
			Surplus.....	10,000	5,000
	$134,000	$55,000		$134,000	$55,000

On January 1, 1925, the date of the above balance sheets, Company X purchased on the open market 400 shares of Company Y's stock at 125 and 15 of its own bonds (par $1,000) at $1,200. If each company had for 1925 a net profit of $10,000 before considering the bonds, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X 1/1/25	Adjustments		Co. X 1/1/26
Other Assets	$124,000	$10,000 (b)	$68,000 (a) 300 (c)	$ 65,700
Y's Stock	.....	50,000 (a)	.....	50,000
Treasury Bonds	.....	18,000 (a)	300 (c) 17,700 (d)	.....
Goodwill	10,000	.....	.....	10,000
	$134,000			$125,700
Bonds Payable	$ 20,000	15,000 (d)	.....	$ 5,000
Bond Premium	4,000	400 (c) 2,700 (d)	.....	900
Capital Stock	100,000	.....	.....	100,000
Surplus	10,000	200 (c)	10,000 (b)	19,800
	$134,000			$125,700

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 65,700	$60,000	.....	.....	$125,700
Y's Stock	50,000	.....	.....	$50,000	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$125,700	$65,000			$146,700
Bonds Payable	$ 5,000	.....	.....	.....	$ 5,000
Bond Premium	900	.....	.....	.....	900
Capital Stock:					
Inside	100,000	$40,000	40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	19,800	12,000	4,000	.....	27,800
Outside	.....	3,000	.....	.....	3,000
	$125,700	$65,000			$146,700

(a) $4/5 \times \$5,000 = \$4,000$

Solution—Actual Value Method

The balance sheet of Company X as of January 1, 1926, under the Actual Value Method is found by posting the following entry to the balance sheet under the Cost Value Method.

Co. Y's Stock ($4/5 \times \$10,000$)	$8,000	
Profit and Loss		$8,000

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 65,700	$60,000	.....	.....	$125,700
Y's Stock	58,000	.....	.....	$58,000	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$133,700	$65,000			$146,700

	Co. X	Co. Y	Eliminations		C. B. S.
Bonds Payable	$ 5,000	.....	.....	.....	$ 5,000
Bond Premium	900	.....	.....	.....	900
Capital Stock:					
Inside	100,000	$40,000	$40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	27,800	12,000	12,000	.....	27,800
Outside	.....	3,000	.....	.....	3,000
	$133,700	$65,000			$146,700

By both methods, the formal consolidated balance sheet may be:

COMPANY X AND ITS SUBSIDIARY, COMPANY Y

CONSOLIDATED BALANCE SHEET

January 1, 1926

Other Assets		$125,700
Goodwill		21,000
		$146,700
Co. X's Bonds Payable – Authorized	$ 20,000	
Less Treasury Bonds	15,000	$ 5,000
Bond Premium		900
Majority Interest:		
Capital Stock	$100,000	.....
Surplus	27,800	127,800
Minority Interest:		
Capital Stock	$ 10,000	.....
Surplus	3,000	13,000
		$146,700

or

COMPANY X AND ITS SUBSIDIARY, COMPANY Y

CONSOLIDATED BALANCE SHEET

January 1, 1926

Other Assets		$125,700
Goodwill		21,000
		$146,700
Co. X's Bonds Payable		$ 5,000
Bond Premium		900
Majority Interest:		
Capital Stock	$100,000	.....
Surplus	27,800	127,800
Minority Interest:		
Capital Stock	$ 10,000	.....
Surplus	3,000	13,000
		$146,700

Case Ab

Same as Case Aa if Company X had purchased its own bonds at 900 instead of at 1,200.

Solution—Cost Value Method

	Co. X 1/1/25	Adjustments		Co. X 1/1/26
Other Assets	$124,000	$10,000 (b)	$63,500 (a) 300 (c)	$ 70,200
Y's Stock	.....	50,000 (a)	.....	50,000
Treasury Bonds	.....	13,500 (a) 150 (c)	13,650 (d)	.....
Goodwill	10,000	.....	.....	10,000
	$134,000			$130,200
Bonds Payable	$ 20,000	15,000 (d)	.....	$ 5,000
Bond Premium	4,000	400 (c) 2,700 (d)	.....	900
Capital Stock	100,000	.....	.....	100,000
Surplus	10,000	.....	10,000 (b) 250 (c) 4,050 (d)	24,300
	$134,000			$130,200

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,200	$60,000	.....	.....	$130,200
Y's Stock	50,000	.....	.....	$50,000	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$130,200	$65,000			$151,200
Bonds Payable	$ 5,000	.....	.....	.....	$ 5,000
Bond Premium	900	.....	.....	.....	900
Capital Stock:					
Inside	100,000	$40,000	40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	24,300	12,000	4,000	.....	32,300
Outside	.....	3,000	.....	.....	3,000
	$130,200	$65,000			$151,200

(a) $4/5 \times \$5,000 = \$4,000$

Solution—Actual Value Method

The balance sheet of Company X as of January 1, 1926, under the Actual Value Method is found by posting the following entry to the balance sheet under the Cost Value Method:

Co. Y's Stock ($4/5 \times \$10,000$)	$8,000	
Profit and Loss		$8,000

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,200	$60,000	.....	.....	$130,200
Y's Stock	58,000	.....	.....	$58,000	.....
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$138,200	$65,000			$151,200
Bonds Payable	$ 5,000	.....	.....	.....	$ 5,000
Bond Premium	900	.....	.....	.....	900
Capital Stock:					
Inside	100,000	$40,000	40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	32,300	12,000	4,000	.....	32,300
Outside	.....	3,000	.....	.....	3,000
	$138,200	$65,000			$151,200

Case Ac

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$114,000	$50,000	Bonds 6%, 10 Yrs.	$ 20,000	.....
Bond Discount	6,000	.....	Capital Stock	100,000	$50,000
Goodwill	10,000	5,000	Surplus	10,000	5,000
	$130,000	$55,000		$130,000	$55,000

On January 1, 1925, the date of the above balance sheets, Company X purchased on the open market 400 shares of Company Y's stock at 125 and 15 of its own bonds (par $1,000) at 900. If each company had for 1925 a net profit of $10,000 before considering the bonds, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. X 1/1/25	Adjustments		Co. X 1/1/26
Other Assets	$114,000	$10,000 (b)	$63,500 (a) 300 (c)	$ 60,200
Y's Stock	.....	50,000 (a)	.....	50,000
Treasury Bonds	.....	13,500 (a) 150 (c)	13,650 (d)	.....
Bond Discount	6,000	.....	600 (c) 4,050 (d)	1,350
Goodwill	10,000	.....	.....	10,000
	$130,000			$121,550
Bonds Payable	$ 20,000	15,000 (d)	.....	$ 5,000
Capital Stock	100,000	.....	.....	100,000
Surplus	10,000	750 (c) 2,700 (d)	10,000 (b)	16,550
	$130,000			$121,550

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 60,200	$60,000	.....	.....	$120,200
Y's Stock	50,000	.....	.....	$50,000	.....
Bond Discount	1,350	.....	.....	.....	1,350
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$121,550	$65,000			$142,550
Bonds Payable	$ 5,000	.....	.....	.....	$ 5,000
Capital Stock:					
Inside	100,000	$40,000	40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	16,550	12,000	4,000	.....	24,550
Outside	.....	3,000	.....	.....	3,000
	$121,550	$65,000			$142,550

(a) $4/5 \times \$5{,}000 = \$4{,}000$

Solution—Actual Value Method

The balance sheet of Company X as of January 1, 1926, under the Actual Value Method is found by posting the following entry to the balance sheet under the Cost Value Method:

Co. Y's Stock ($4/5 \times \$10{,}000$)	$8,000	
Profit and Loss		$8,000

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 60,200	$60,000	.....	.....	$120,200
Y's Stock	58,000	.....	.....	$58,000	.....
Bond Discount	1,350	.....	.....	.....	1,350
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$129,550	$65,000			$142,550
Bonds Payable	$ 5,000	.....	.....	.....	$ 5,000
Capital Stock:					
Inside	100,000	$40,000	40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	24,550	12,000	12,000	.....	24,550
Outside	.....	3,000	.....	.....	3,000
	$129,550	$65,000			$142,550

Case Ba1

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$74,000	Bonds, 6%, 10 yrs.	.....	$20,000
Goodwill	10,000	5,000	Bond Premium	.....	4,000
			Capital Stock	$100,000	50,000
			Surplus	10,000	5,000
	$110,000	$79,000		$110,000	$79,000

On January 1, 1924, the date of the above balance sheets, Company Y bought 15 of its own bonds (par $1,000) at 1,200. On January 1, 1925, Company X bought 400 shares of Company Y's stock at 125 on the open market. If each company during each of the years in question had a net profit of $10,000 before considering the bonds, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. Y 1/1/24	Additions	Co. Y 1/1/25	Additions	Co. Y 1/1/26
Other Assets	$74,000	*$18,000 (a) 10,000 (b) *300 (c)	$65,700	$10,000 (a) *300 (b)	$75,400
Treasury Bonds		18,000 (a) *300 (c) *17,700 (d)	.....	.....	.....
Goodwill	5,000	.....	5,000	.....	5,000
	$79,000		$70,700		$80,400
Bonds Payable	$20,000	*15,000 (d)	$ 5,000	.....	$ 5,000
Bond Premium	4,000	*400 (c) *2,700 (d)	900	*100 (b)	800
Capital Stock	50,000	.....	50,000	.....	50,000
Surplus	5,000	10,000 (b) *200 (c)	14,800	10,000 (a) *200 (b)	24,600
	$79,000		$70,700		$80,400

* Denotes deduction.

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$75,400	.....	.....	$145,400
Y's Stock	50,000	.....	.....	$50,000	.....
Goodwill	10,000	5,000	.....	1,840	13,160
	$130,000	$80,400			$158,560
Bonds Payable	.....	$ 5,000	.....	.....	$ 5,000
Bond Premium	.....	800	.....	.....	800
Capital Stock:					
Inside	$100,000	40,000	$40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	30,000	19,680	11,840	.....	37,840
Outside	.....	4,920	.....	.....	4,920
	$130,000	$80,400			$158,560

(a) $4/5 \times \$14,800 = \$11,840$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$75,400	.....	.....	$145,400
Y's Stock (a)	57,840	.....	.....	$57,840	.....
Goodwill	10,000	5,000	.....	1,840	13,160
	$137,840	$80,400			$158,560
Bonds Payable	.....	$ 5,000	.....	.....	$ 5,000
Bond Premium	.....	800	.....	.....	800
Capital Stock:					
Inside	$100,000	40,000	$40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	37,840	19,680	19,680	.....	37,840
Outside	.....	4,920	.....	.....	4,920
	$137,840	$80,400			$158,560

(a) $\$50,000 + [4/5 \times (\$10,000 - \$200)] = \$57,840$

Case Ba2

Same as Case Ba1 if Company Y had bought its own bonds at 900 instead of at 1,200.

Solution—Cost Value Method

	Co. Y 1/1/24	Additions	Co. Y 1/1/25	Additions	Co. Y 1/1/26
Other Assets	$74,000	*$13,500 (a) 10,000 (b) *300 (c)	$70,200	$10,000 (a) *300 (b)	$79,900
Treasury Bonds	.....	13,500 (a) 150 (c) *13,650 (d)	.....	.....	.....
Goodwill	5,000	.....	5,000	.....	5,000
	$79,000		$75,200		$84,900
Bonds Payable	$20,000	*15,000 (d)	$ 5,000	.....	$ 5,000
Bond Premium	4,000	*400 (c) *2,700 (d)	900	100 (b)	800
Capital Stock	50,000	.....	50,000	.....	50,000
Surplus	5,000	10,000(b) 250 (c) 4,050 (d)	19,300	10,000 (a) *200 (b)	29,100
	$79,000		$75,200		$84,900

* Denotes deduction.

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$79,900	.....	.....	$149,900
Y's Stock	50,000	.....	.....	$50,000	.....
Goodwill	10,000	5,000	.....	5,000	10,000
	$130,000	$84,900			$159,900

	Co. X	Co. Y	Eliminations		C. B. S.
Bonds Payable	.....	$ 5,000	.....	.....	$ 5,000
Bond Premium	.....	800	.....	.....	800
Capital Stock:					
Inside	$100,000	40,000	$40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	30,000	23,280	15,440	.....	37,840
Outside	.....	5,820	.....	.....	5,820
Revaluation Reserve	.....	.....	.....	$440	440
	$130,000	$84,900			$159,900

(a) $4/5 \times \$19,300 = \$15,440$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$79,900	.....	.....	$149,900
Y's Stock (a)	57,840	.....	.....	$57,840	.....
Goodwill	10,000	5,000	.....	5,000	10,000
	$137,840	$84,900			$159,900
Bonds Payable	.....	$ 5,000	.....	.....	$ 5,000
Bond Premium	.....	800	.....	.....	800
Capital Stock:					
Inside	$100,000	40,000	$40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	37,840	23,280	23,280	.....	37,840
Outside	.....	5,820	.....	.....	5,820
Revaluation Reserve	.....	.....	.....	440	440
	$137,840	$84,900			$159,900

(a) $\$50,000 + [4/5 \times (\$10,000 - \$200)] = \$57,840$

Case Ba3

Same as Case Ba1 if Company Y had bought its own bonds at 1,300 instead of at 1,200.

Solution—Cost Value Method

	Co. Y 1/1/24	Additions	Co. Y 1/1/25	Additions	Co. Y 1/1/26
Other Assets	$74,000	*$19,500 (a) 10,000 (b) *300 (c)	$64,200	$10,000 (a) *300 (b)	$73,900
Treasury Bonds	.....	19,500 (a) *450 (c) *19,050 (d)	.....	.....	.....
Goodwill	5,000	.....	5,000	.....	5,000
	$79,000		$69,200		$78,900

	Co. Y 1/1/24	Additions	Co. Y 1/1/25	Additions	Co. Y 1/1/26
Bonds Payable	$20,000	*$15,000 (d)	$ 5,000	.....	$ 5,000
Bond Premium	4,000	*400 (c)	900	*$ 100 (b)	800
		*2,700 (d)			
Capital Stock	50,000	.....	50,000	.....	50,000
Surplus	5,000	10,000 (b)	13,300	10,000 (a)	23,100
		*350 (c)		*200 (b)	
		*1,350 (d)			
	$79,000		$69,200		$78,900

* Denotes deduction.

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$73,900	.....	.....	$143,900
Y's Stock	50,000	.....	.....	$50,000	.....
Goodwill	10,000	5,000	.....	640	14,360
	$130,000	$78,900			$158,260
Bonds Payable	.....	$ 5,000	.....	.....	$ 5,000
Bond Premium	.....	800	.....	.....	800
Capital Stock:					
Inside	$100,000	40,000	$40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	30,000	18,480	10,640	.....	37,840
Outside	.....	4,620	.....	.....	4,620
	$130,000	$78,900			$158,260

(a) $4/5 \times \$13,300 = \$10,640$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$73,900	.....	.....	$143,900
Y's Stock (a)	57,840	.....	.....	$57,840	.....
Goodwill	10,000	5,000	.....	640	14,360
	$137,840	$78,900			$158,260
Bonds Payable	.....	$ 5,000	.....	.....	$ 5,000
Bond Premium	.....	800	.....	.....	800
Capital Stock:					
Inside	$100,000	40,000	$40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	37,840	18,480	18,480	.....	37,840
Outside	.....	4,620	.....	.....	4,620
	$137,840	$78,900			$158,260

(a) $\$50,000 + [4/5 \times (\$10,000 - \$200)] = \$57,840$

Case Bb1

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$64,000	Bonds, 6%, 10 yrs.	.....	$20,000
Bond Discount	.....	6,000	Capital Stock	$100,000	50,000
Goodwill	10,000	5,000	Surplus	10,000	5,000
	$110,000	$75,000		$110,000	$75,000

On January 1, 1924, the date of the above balance sheets, Company Y bought 15 of its own bonds (par $1,000) at 700. On January 1, 1925, Company X bought 400 shares of Company Y's stock at 125 on the open market. On December 31, 1925, Company Y sold all its treasury bonds at 1,050. If each company had during each of the years in question a net profit of $10,000 before considering the bonds, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. Y 1/1/24	Additions	Co. Y 1/1/25	Additions	Co. Y 1/1/26
Other Assets	$64,000	*$10,500 (a) 10,000 (b) *300 (c)	$63,200	$10,000 (a) *300 (b) 15,750 (c)	$88,650
Treasury Bonds		10,500 (a) 450 (c) *10,950 (d)	.....	.....	.....
Bond Discount	6,000	*600 (c) *4,050 (d)	1,350	*150 (b) *750 (c)	450
Goodwill	5,000	.....	5,000	.....	5,000
	$75,000		$69,550		$94,100
Bonds Payable	$20,000	*15,000 (d)	$ 5,000	15,000 (c)	$20,000
Capital Stock	50,000	.....	50,000	.....	50,000
Surplus	5,000	10,000 (b) *450 (c)	14,550	10,000 (a) *450 (b)	24,100
	$75,000		$69,550		$94,100

* Denotes deduction.

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$88,650	.....	.....	$158,650
Y's Stock	50,000	.....	.....	$50,000	.....
Bond Discount	.....	450	.....	.....	450
Goodwill	10,000	5,000	.....	1,640	13,360
	$130,000	$94,100			$172,460
Bonds Payable	.....	$20,000	.....	.....	$ 20,000
Capital Stock:					
Inside	$100,000	40,000	$40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	30,000	19,280	11,640	.....	37,640
Outside	.....	4,820	.....	.....	4,820
	$130,000	$94,100			$172,460

(a) $4/5 \times \$14,550 = \$11,640$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$88,650	.....	.....	$158,650
Y's Stock (a)	57,640	.....	.....	$57,640	.....
Bond Discount	.....	450	.....	.....	450
Goodwill	10,000	5,000	.....	1,640	13,360
	$137,640	$94,100			$172,460
Bonds Payable	.....	$20,000	.....	.....	$ 20,000
Capital Stock:					
Inside	$100,000	40,000	$40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	37,640	19,280	19,280	.....	37,640
Outside	.....	4,820	.....	.....	4,820
	$137,640	$94,100			$172,460

a) $\$50,000 + [4/5 \times (\$10,000 - \$450)] = \$57,640$

Case Bb2

Same as Case Bb1 if Company Y had bought the treasury bonds at 600 instead of at 700.

Solution—Cost Value Method

	Co. Y 1/1/24	Additions	Co. Y 1/1/25	Additions	Co. Y 1/1/26
Other Assets	$64,000	*$ 9,000 (a) 10,000 (b) *300 (c)	$64,700	$10,000 (a) *300 (b) 15,750 (c)	$90,150
Treasury Bonds	.....	9,000 (a) 600 (c) *9,600 (d)	.....	.....	.....
Bond Discount	6,000	*600 (c) *4,050 (d)	1,350	*150 (b) *750 (c)	450
Goodwill	5,000	.....	5,000	.....	5,000
	$75,000		$71,050		$95,600
Bonds Payable	$20,000	*15,000 (d)	$ 5,000	15,000 (c)	$20,000
Capital Stock	50,000	.....	50,000	.....	50,000
Surplus	5,000	10,000 (b) *300 (c) 1,350 (d)	16,050	10,000 (a) *450 (b)	25,600
	$75,000		$71,050		$95,600

* Denotes deduction.

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$90,150	.....	.....	$160,150
Y's Stock	50,000	.....	.....	$50,000	.....
Bond Discount	.....	450	.....	.....	450
Goodwill	10,000	5,000	.....	2,840	12,160
	$130,000	$95,600			$172,760

	Co. X	Co. Y	Eliminations		C. B. S.
Bonds Payable	.....	$20,000	.....	.....	$ 20,000
Capital Stock:					
Inside	$100,000	40,000	$40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	30,000	20,480	12,840	.....	37,640
Outside	.....	5,120	.....	.....	5,120
	$130,000	$95,600			$172,760

(a) $4/5 \times \$16,050 = \$12,840$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$90,150	.....	.....	$160,150
Y's Stock (a)	57,640	.....	.....	$57,640	.....
Bond Discount	.....	450	.....	.....	450
Goodwill	10,000	5,000	.....	2,840	12,160
	$137,640	$95,600			$172,760
Bonds Payable	.....	$20,000	.....	.....	$ 20,000
Capital Stock:					
Inside	$100,000	40,000	$40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	37,640	20,480	20,480	.....	37,640
Outside	.....	5,120	.....	.....	5,120
	$137,640	$95,600			$172,760

(a) $\$50,000 + [4/5 \times (\$10,000 - \$450)] = \$57,640$

Case Bb3

Same as Case Bb1 if Company Y had bought the treasury bonds at 800 instead of at 700.

Solution—Cost Value Method

	Co. Y 1/1/24	Additions	Co. Y 1/1/25	Additions	Co. Y 1/1/26
Other Assets	$64,000	*$12,000 (a) 10,000 (b) *300 (c)	$61,700	$10,000 (a) *300 (b) 15,750 (c)	$87,150
Treasury Bonds	.....	12,000 (a) 300 (c) *12,300 (d)	.....	.....	.....
Bond Discount	6,000	*600 (c) *4,050 (d)	1,350	*150 (b) *750 (c)	450
Goodwill	5,000	.....	5,000	.....	5,000
	$75,000		$68,050		$92,600

	Co. Y 1/1/24	Additions	Co. Y 1/1/25	Additions	Co. Y 1/1/26
Bonds Payable	$20,000	*$15,000 (d)	$ 5,000	$15,000 (c)	$20,000
Capital Stock	50,000	.....	50,000	.....	50,000
Surplus	5,000	10,000 (b) *600 (c) *1,350 (d)	13,050	10,000 (a) *450 (b)	22,600
	$75,000		$68,050		$92,600

* Denotes deduction.

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$87,150	.....	.....	$157,150
Y's Stock	50,000	.....	.....	$50,000	.....
Bond Discount	.....	450	.....	.....	450
Goodwill	10,000	5,000	.....	440	14,560
	$130,000	$92,600			$172,160
Bonds Payable	.....	$20,000	.....	.....	$ 20,000
Capital Stock:					
Inside	$100,000	40,000	$40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	30,000	18,080	10,440	.....	37,640
Outside	.....	4,520	.....	.....	4,520
	$130,000	$92,600			$172,160

(a) $4/5 \times \$13,050 = \$10,440$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$87,150	.....	.....	$157,150
Y's Stock (a)	57,640	.....	.....	$57,640	.....
Bond Discount	.....	450	.....	.....	450
Goodwill	10,000	5,000	.....	440	14,560
	$137,640	$92,600			$172,160
Bonds Payable	.....	$20,000	.....	.....	$ 20,000
Capital Stock:					
Inside	$100,000	40,000	$40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	37,640	18,080	18,080	.....	37,640
Outside	.....	4,520	.....	.....	4,520
	$137,640	$92,600			$172,160

(a) $\$50,000 + [4/5 \times (\$10,000 - \$450)] = \$57,640$

Case Bc1

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$74,000	Bonds, 6%, 10 yrs.	.....	$30,000
Bond Discount	.....	6,000	Capital Stock	$100,000	50,000
Goodwill	10,000	5,000	Surplus	10,000	5,000
	$110,000	$85,000		$110,000	$85,000

On January 1, 1925, the date of the above balance sheets, Company X bought 400 shares of Company Y's stock at 125 on the open market. On December 31, 1925, Company Y bought at 820, 20 of its own bonds (par $1,000) from which the interest coupons due that day had been cut. If each company had during 1925 a net profit of $10,000 before considering the bonds, make a consolidated balance sheet as of January 1, 1926.

Solution—Cost Value Method

	Co. Y 1/1/25	Adjustments		Co. Y 1/1/26
Other Assets	$74,000	$10,000 (a)	$ 1,800 (b)	$65,800
			16,400 (c)	
Treasury Bonds	.....	16,400 (c)	16,400 (d)	.....
Bond Discount	6,000	.....	600 (b)	1,800
			3,600 (d)	
Goodwill	5,000	.....	.....	5,000
	$85,000			$72,600
Bonds Payable	$30,000	20,000 (d)	.....	$10,000
Capital Stock	50,000	.....	.....	50,000
Surplus	5,000	2,400 (b)	10,000 (a)	12,600
	$85,000			$72,600

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 60,000	$65,800	.....	.....	$125,800
Y's Stock	50,000	.....	.....	$50,000	.....
Bond Discount	.....	1,800	.....	.....	1,800
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$120,000	$72,600			$148,600
Bonds Payable	.....	$10,000	.....	.....	$ 10,000
Capital Stock:					
Inside	$100,000	40,000	40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	20,000	10,080	4,000	.....	26,080
Outside	.....	2,520	.....	.....	2,520
	$120,000	$72,600			$148,600

(a) $4/5 \times \$5,000 = \$4,000$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 60,000	$65,800	.....	.....	$125,800
Y's Stock (a)	56,080	.....	.....	$56,080	.....
Bond Discount	.....	1,800	.....	.....	1,800
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$126,080	$72,600			$148,600
Bonds Payable	.....	$10,000	.....	.....	$ 10,000
Capital Stock:					
Inside	$100,000	40,000	40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	26,080	10,080	10,080	.....	26,080
Outside	.....	2,520	.....	.....	2,520
	$126,080	$72,600			$148,600

(a) $\$50,000 + [4/5 \times (\$10,000 - \$2,400)] = \$56,080$

Case Bc2

Same as Case Bc1 if Company Y had bought the treasury bonds at 800 instead of at 820.

Solution—Cost Value Method

	Co. Y 1/1/25	Adjustments		Co. Y 1/1/26
Other Assets	$74,000	$10,000 (a)	$ 1,800 (b)	$66,200
			16,000 (c)	
Treasury Bonds	.....	16,000 (c)	16,000 (d)	.....
Bond Discount	6,000	.....	600 (b)	1,800
			3,600 (d)	
Goodwill	5,000	.....	.....	5,000
	$85,000			$73,000
Bonds Payable	$30,000	20,000 (d)	.....	$10,000
Capital Stock	50,000	.....	.....	50,000
Surplus	5,000	2,400 (b)	10,000 (a)	13,000
			400 (d)	
	$85,000			$73,000

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 60,000	$66,200	.....	.....	$126,200
Y's Stock	50,000	.....	.....	$50,000	.....
Bond Discount	.....	1,800	.....	.....	1,800
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$120,000	$73,000			$149,000

	Co. X	Co. Y	Eliminations		C. B. S.
Bonds Payable	.....	$10,000	.....	.....	$ 10,000
Capital Stock:					
Inside	$100,000	40,000	$40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	20,000	10,400	4,000	.....	26,400
Outside	.....	2,600	.....	.....	2,600
	$120,000	$73,000			$149,000

(a) $4/5 \times \$5,000 = \$4,000$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 60,000	$66,200	.....	.....	$126,200
Y's Stock (a)	56,400	.....	.....	$56,400	.....
Bond Discount	.....	1,800	.....	.....	1,800
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$126,400	$73,000			$149,000
Bonds Payable	.....	$10,000	.....	.....	$ 10,000
Capital Stock:					
Inside	$100,000	40,000	40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	26,400	10,400	10,400	.....	26,400
Outside	.....	2,600	.....	.....	2,600
	$126,400	$73,000			$149,000

(a) $\$50,000 + [4/5 \times (\$10,000 + \$400 - \$2,400)] = \$56,400$

Case Bc3

Same as Case Bc1 if Company Y had bought the treasury bonds at 850 instead of at 820.

Solution—Cost Value Method

	Co. Y 1/1/25	Adjustments		Co. Y 1/1/26
Other Assets	$74,000	$10,000 (a)	$ 1,800 (b)	$65,200
			17,000 (c)	
Treasury Bonds	.....	17,000 (c)	17,000 (d)	
Bond Discount	6,000	.....	600 (b)	1,800
			3,600 (d)	
Goodwill	5,000	.....	.....	5,000
	$85,000			$72,000
Bonds Payable	$30,000	20,000 (d)	.....	$10,000
Capital Stock	50,000	.....	.....	50,000
Surplus	5,000	2,400 (b)	10,000 (a)	12,000
		600 (d)		
	$85,000			$72,000

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 60,000	$65,200	.....	.....	$125,200
Y's Stock	50,000	.....	.....	$50,000	.....
Bond Discount	.....	1,800	.....	.....	1,800
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$120,000	$72,000			$148,000
Bonds Payable	.....	$10,000	.....	.....	$ 10,000
Capital Stock:					
Inside	$100,000	40,000	40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside (a)	20,000	9,600	4,000	.....	25,600
Outside	.....	2,400	.....	.....	2,400
	$120,000	$72,000			$148,000

(a) $4/5 \times \$5,000 = \$4,000$

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 60,000	$65,200	.....	.....	$125,200
Y's Stock (a)	55,600	.....	.....	$55,600	.....
Bond Discount	.....	1,800	.....	.....	1,800
Goodwill	10,000	5,000	$ 6,000	.....	21,000
	$125,600	$72,000			$148,000
Bonds Payable	.....	$10,000	.....	.....	$ 10,000
Capital Stock:					
Inside	$100,000	40,000	40,000	.....	100,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	25,600	9,600	9,600	.....	25,600
Outside	.....	2,400	.....	.....	2,400
	$125,600	$72,000			$148,000

(a) $\$50,000 + [4/5 \times (\$10,000 - \$2,400 - \$600)] = \$55,600$

CHAPTER XVIII

INTERCOMPANY BONDS

Since intercompany bonds are valid current assets from the point of view of the individual corporations, all adjustments therefore must not affect the minority interests except in extreme cases where there is a very marked divergence between the cost and market values of the securities.

Rule XXXVI

Eliminate intercompany bonds at par together with pro rata premium or discount pertaining thereto and make the elimination entries balance through Surplus—Inside.

If desired, re-establish at par the intercompany bonds as though they were treasury bonds of the group.

Cases.—Ignoring the fact that the Discount on Bonds Purchased and Premium on Bonds Purchased accounts may be used in connection with the intercompany bonds purchased, the chief variations in the underlying conditions regarding intercompany bonds are:

A. Issued at par:
   (a) Bought at book value.
   (b) Bought at below book value.
   (c) Bought at above book value.

B. Issued at a discount:
   (a) Bought at book value.
   (b) Bought at below book value.
   (c) Bought at above book value.

C. Issued at a premium:
   (a) Bought at book value.
   (b) Bought at below book value.
   (c) Bought at above book value.

Since it makes no difference whether the intercompany bonds are held by the parent or the subsidiary, and since the elimination of the intercompany bonds does not affect the elimination of the intercompany stock, the illustrative cases have been limited to Class B affiliations. As mentioned in Chapter I, (page 11) Class B affiliations are composed of two or more corporations whose stockholders are practically identical both as to identity and relative holdings.

Case Aa

	Co. X	Co. Y		Co. X	Co. Y
Other Assets.....	$110,000	$75,000	Bonds, 6%, 10 yrs.		$20,000
			Capital Stock.....	$100,000	50,000
			Surplus.....	10,000	5,000
	$110,000	$75,000		$110,000	$75,000

On January 1, 1925, the date of the above balance sheets, Company X bought 15 out of 20 of Company Y's bonds at par on the open market. Each company made a net income during 1925 of $10,000 before considering the bonds. Make a consolidated balance sheet as of January 1, 1926, if both companies were owned outright by George S. Hillis.

Solution

Accounts Co. X's	1/1/25	Adjustments		1/1/26
Other Assets.....	$110,000	$10,000 (b)	$15,000 (a)	$105,900
		900 (c)		
Y's Bonds.....	.....	15,000 (a)	.....	15,000
	$110,000			$120,900
Capital Stock.....	$100,000	.....	.....	$100,000
Surplus.....	10,000	.....	10,000 (b)	20,900
			900 (c)	
	$110,000			$120,900

Co. Y's	1/1/25	Adjustments		1/1/26
Other Assets	$ 75,000	$10,000 (a)	$ 1,200 (b)	$ 83,800
	$ 75,000			$ 83,800
Bonds Payable	$ 20,000	.....	.....	$ 20,000
Capital Stock	50,000	.....	.....	50,000
Surplus	5,000	1,200 (b)	10,000 (a)	13,800
	$ 75,000			$ 83,800

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$105,900	$83,800	.....	.....	$189,700
Y's Bonds	15,000	.....	.....	$15,000	.....
	$120,900	$83,800			$189,700
Bonds Payable	.....	$20,000	$15,000	.....	$ 5,000
Capital Stock	$100,000	50,000	.....	.....	150,000
Surplus	20,900	13,800	.....	.....	34,700
	$120,900	$83,800			$189,700

Case Ab

Same as Case Aa if Company X had bought Company Y's bonds at 900 instead of at 1,000.

Solution

Accounts Co. X's	1/1/25	Adjustments		1/1/26
Other Assets	$110,000	$10,000 (b) 900 (c)	$13,500 (a)	$107,400
Y's Bonds	.....	13,500 (a) 150 (c)	.....	13,650
	$110,000			$121,050
Capital Stock	$100,000	.....	.....	$100,000
Surplus	10,000	.....	10,000 (b) 1,050 (c)	21,050
	$110,000			$121,050
Co. Y's				
Other Assets	$ 75,000	$10,000 (a)	$ 1,200 (b)	$ 83,800
	$ 75,000			$ 83,800
Bonds Payable	$ 20,000	.....	.....	$ 20,000
Capital Stock	50,000	.....	.....	50,000
Surplus	5,000	1,200 (b)	10,000 (a)	13,800
	$ 75,000			$ 83,800

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$107,400	$83,800	.....	.....	$191,200
Y's Bonds	13,650	.....	$ 1,350	$15,000	
	$121,050	$83,800			$191,200
Bonds Payable	.....	$20,000	15,000	.....	$ 5,000
Capital Stock	$100,000	50,000	.....	.....	150,000
Surplus	21,050	13,800	.....	1,350	36,200
	$121,050	$83,800			$191,200

In a Class A affiliation the elimination credit entry to surplus would be made to Surplus—Inside as the minority interest can not be affected by the preparation of a consolidated balance sheet.

Case Ac

Same as Case Aa if Company X had bought Company Y's bonds at 1,100 instead of at 1,000.

Solution

Accounts	1/1/25	Adjustments		1/1/26
Co. X's				
Other Assets	$110,000	$10,000 (b) 900 (c)	$16,500 (a)	$104,400
Y's Bonds	.....	16,500 (a)	150 (c)	16,350
	$110,000			$120,750
Capital Stock	$100,000	.....	.....	$100,000
Surplus	10,000	.....	10,000 (b) 750 (c)	20,750
	$110,000			$120,750
Co. Y's.				
Other Assets	$ 75,000	$10,000 (a)	$1,200 (b)	$ 83,800
	$ 75,000			$ 83,800
Bonds Payable	$ 20,000	.....	.....	$ 20,000
Capital Stock	50,000	.....	.....	50,000
Surplus	5,000	1,200 (b)	10,000 (a)	13,800
	$ 75,000			$ 83,800

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$104,400	$83,800	.....	.....	$188,200
Y's Bonds	16,350	.....	.....	$16,350	.....
	$120,750	$83,800			$188,200
Bonds Payable	.....	$20,000	$15,000	.....	$ 5,000
Capital Stock	$100,000	50,000	.....	.....	150,000
Surplus	20,750	13,800	1,350	.....	33,200
	$120,750	$83,800			$188,200

Case Ba

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$110,000	$74,400	Bonds, 6%, 10 yrs.	.....	$20,000
Bond Discount	.....	600	Capital Stock	$100,000	50,000
			Surplus	10,000	5,000
	$110,000	$75,000		$110,000	$75,000

On January 1, 1925, the date of the above balance sheets, Company X bought 15 out of 20 of Company Y's bonds at 970 on the open market. Each company made a net income during 1925 of $10,000 before considering the bonds. Make a consolidated balance sheet as of January 1, 1926, if both companies were owned outright by Richard McFadden.

Solution

Accounts	1/1/25	Adjustments		1/1/26
Co. X's				
Other Assets	$110,000	$10,000 (b) 900 (c)	$14,550 (a)	$106,350
Y's Bonds	.....	14,550 (a) 45 (c)	.....	14,595
	$110,000			$120,945
Capital Stock	$100,000	.....	.....	$100,000
Surplus	10,000	.....	10,000 (b) 945 (c)	20,945
	$110,000			$120,945
Co. Y's				
Other Assets	$74,400	$10,000 (a)	$1,200 (b)	$83,200
Bond Discount	600	.....	60 (b)	540
	$75,000			$83,740
Bonds Payable	$20,000	.....	.....	$20,000
Capital Stock	50,000	.....	.....	50,000
Surplus	5,000	1,260 (b)	10,000 (a)	13,740
	$75,000			$83,740

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$106,350	$83,200	.....	.....	$189,550
Y's Bonds	14,595	.....	.....	$14,595	.....
Bond Discount (a)	.....	540	.....	405	135
	$120,945	$83,740			$189,685
Bonds Payable	.....	$20,000	$15,000	.....	$ 5,000
Capital Stock	$100,000	50,000	.....	.....	150,000
Surplus	20,945	13,740	.....	.....	34,685
	$120,945	$83,740			$189,685

(a) $15/20 \times \$540 = \$405$

Case Bb

Same as Case Ba if Company X had bought Company Y's bonds at 960 instead of at 970.

Solution

Accounts	1/1/25	Adjustments		1/1/26
Co. X's				
Other Assets	$110,000	$10,000 (b) 900 (c)	$14,400 (a)	$106,500
Y's Bonds	.....	14,400 (a) 60 (c)	.....	14,460
	$110,000			$120,960
Capital Stock	$100,000	.....	.....	$100,000
Surplus	10,000	.....	10,000 (b) 960 (c)	20,960
	$110,000			$120,960
Co. Y's				
Other Assets	$74,400	$10,000 (a)	$ 1,200 (b)	$ 83,200
Bond Discount	600	.....	60 (b)	540
	$ 75,000			$ 83,740
Bonds Payable	$ 20,000	.....	.....	$ 20,000
Capital Stock	50,000	.....	.....	50,000
Surplus	5,000	1,260 (b)	10,000 (a)	13,740
	$ 75,000			$ 83,740

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$106,500	$83,200	.....	.....	$189,700
Y's Bonds	14,460	.....	.....	$14,460	.....
Bond Discount (a)	.....	540	.....	405	135
	$120,960	$83,740			$189,835
Bonds Payable	.....	$20,000	$15,000	.....	$ 5,000
Capital Stock	$100,000	50,000	.....	.....	150,000
Surplus	20,960	13,740	.....	135	34,835
	$120,960	$83,740			$189,835

(a) $15/20 \times \$540 = \$405$

Case Bc

Same as Case Ba if Company X had bought Company Y's bonds at 980 instead of at 970.

Solution

Accounts Co. X's	1/1/25	Adjustments		1/1/26
Other Assets	$110,000	$10,000 (b) 900 (c)	$14,700 (a)	$106,200
Y's Bonds	.....	14,700 (a) 30 (c)	.....	14,730
	$110,000			$120,930
Capital Stock	$100,000	.....	.....	$100,000
Surplus	10,000	.....	10,000 (b) 930 (c)	20,930
	$110,000			$120,930
Co. Y's				
Other Assets	$ 74,400	$10,000 (a)	$ 1,200 (b)	$ 83,200
Bond Discount	600	.....	60 (b)	540
	$ 75,000			$ 83,740
Bonds Payable	$ 20,000	.....	.....	$ 20,000
Capital Stock	50,000	.....	.....	50,000
Surplus	5,000	1,260 (b)	10,000 (a)	13,740
	$ 75,000			$ 83,740

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$106,200	$83,200	.....	.....	$189,400
Y's Bonds	14,730	.....	.....	$14,730	.....
Bond Discount (a)	.....	540	.....	405	135
	$120,930	$83,740			$189,535
Bonds Payable	.....	$20,000	$15,000	.....	$ 5,000
Capital Stock	$100,000	50,000	.....	.....	150,000
Surplus	20,930	13,740	135	.....	34,535
	$120,930	$83,740			$189,535

(a) $15/20 \times \$540 = \$405$

Case Ca

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$110,000	$75,800	Bonds, 6%, 10 yrs.	.....	$20,000
			Bond Premium	.....	800
			Capital Stock	$100,000	50,000
			Surplus	10,000	5,000
	$110,000	$75,800		$110,000	$75,800

On January 1, 1925, the date of the above balance sheets, Company X bought 15 out of 20 of Company Y's bonds at

1,040 on the open market. Each company made a net income during 1925 of $10,000 before considering the bonds. Make a consolidated balance sheet as of January 1, 1926, if both companies were owned outright by C. W. Hillis.

Solution

Accounts		Adjustments		
Co. X's	1/1/25			1/1/26
Other Assets	$110,000	$10,000 (b) 900 (c)	$15,600 (a)	$105,300
Y's Bonds	.....	15,600 (a)	60 (c)	15,540
	$110,000			$120,840
Capital Stock	$100,000	.....	.....	$100,000
Surplus	10,000	.....	10,000 (b) 840 (c)	20,840
	$110,000			$120,840
Co. Y's				
Other Assets	$ 75,800	$10,000 (a)	$ 1,200 (b)	$ 84,600
	$ 75,800			$ 84,600
Bonds Payable	$ 20,000	.....	.....	$ 20,000
Bond Premium	800	80 (b)	.....	720
Capital Stock	50,000	.....	.....	50,000
Surplus	5,000	1,120 (b)	10,000 (a)	13,880
	$ 75,800			$ 84,600

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$105,300	$84,600	.....	.....	$189,900
Y's Bonds	15,540	.....	.....	$15,540	.....
	$120,840	$84,600			$189,900
Bonds Payable	.....	$20,000	$15,000	.....	$ 5,000
Bond Premium (a)	.....	720	540	.....	180
Capital Stock	$100,000	50,000	.....	.....	150,000
Surplus	20,840	13,880	.....	.....	34,720
	$120,840	$84,600			$189,900

(a) $15/20 \times \$720 = \$540$

Case Cb

Same as Case Ca if Company X had bought Company Y's bonds at 1,020 instead of at 1,040.

Solution

Accounts Co. X's	1/1/25	Adjustments		1/1/26
Other Assets	$110,000	$10,000 (b) 900 (c)	$15,300 (a)	$105,600
Y's Bonds	.....	15,300 (a)	30 (c)	15,270
	$110,000			$120,870
Capital Stock	$100,000	.....	.....	$100,000
Surplus	10,000	.....	10,000 (b) 870 (c)	20,870
	$110,000			$120,870
Co. Y's				
Other Assets	$ 75,800	$10,000 (a)	$ 1,200 (b)	$ 84,600
	$ 75,800			$ 84,600
Bonds Payable	$ 20,000	.....	.....	$ 20,000
Bond Premium	800	80 (b)	.....	720
Capital Stock	50,000	.....	.....	50,000
Surplus	5,000	1,120 (b)	10,000 (a)	13,880
	$ 75,800			$ 84,600

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$105,600	$84,600	.....	.....	$190,200
Y's Bonds	15,270	.....	.....	$15,270	.....
	$120,870	$84,600			$190,200
Bonds Payable	.....	$20,000	$15,000	.....	$ 5,000
Bond Premium (a)	.....	720	540	.....	180
Capital Stock	$100,000	50,000	.....	.....	150,000
Surplus	20,870	13,880	.....	270	35,020
	$120,870	$84,600			$190,200

(a) $15/20 \times \$720 = \$540$

Case Cc

Same as Case Ca if Company X had bought Company Y's bonds at 1,050 instead of at 1,040.

Solution

Accounts Co. X's	1/1/25	Adjustments		1/1/26
Other Assets	$110,000	$10,000 (b) 900 (c)	$15,750 (a)	$105,150
Y's Bonds	.....	15,750 (a)	75 (c)	15,675
	$110,000			$120,825

	1/1/25	Adjustments		1/1/26
Capital Stock	$100,000	.....	.....	$100,000
Surplus	10,000	.....	$10,000 (b)	20,825
			825 (c)	
	$110,000			$120,825
Co. Y's				
Other Assets	$ 75,800	$10,000 (a)	$ 1,200 (b)	$ 84,600
	$ 75,800			$ 84,600
Bonds Payable	$ 20,000	.....	.....	$ 20,000
Bond Premium	800	80 (b)	.....	720
Capital Stock	50,000	.....	.....	50,000
Surplus	5,000	1,120 (b)	10,000 (a)	13,880
	$ 75,800			$ 84,600

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$105,150	$84,600	.....	.....	$189,750
Y's Bonds	15,675	.....	.....	$15,675	.....
	$120,825	$84,600			$189,750
Bonds Payable	.....	$20,000	$15,000	.....	$ 5,000
Bond Premium (a)	.....	720	540	.....	180
Capital Stock	$100,000	50,000	.....	.....	150,000
Surplus	20,825	13,880	135	.....	34,570
	$120,825	$84,600			$189,750

(a) $15/20 \times \$720 = \$540$

CHAPTER XIX

PERSONAL AND NOTE ACCOUNTS

The subject of the relation of personal and note accounts to consolidated balance sheet technique is divisible into three topics, viz., (1) personal accounts, (2) undiscounted notes, and (3) discounted notes.

Personal Accounts

Personal intercompany accounts may be caused in numerous ways, viz., sales, advances, dividends, etc. The cause of the accounts, however, has no effect on the consolidated balance sheet technique concerning them.

Rule XXXVII

Reconcile intercompany accounts on the working sheets of the individual corporations before recording them on the consolidated working papers.

Eliminate the intercompany accounts receivable against the intercompany accounts payable.

Cases.—The chief variations in the underlying conditions regarding intercompany personal accounts are:

A. When balances agree.
B. When balances do not agree.

CASE A

	Co. X	Co. Y		Co. X	Co. Y
Other Assets.....	$100,000	$50,000	Accounts Payable .	$ 15,000	$10,000
Accounts Receivable.....	25,000	15,000	Capital Stock.....	100,000	50,000
			Surplus.....	10,000	5,000
	$125,000	$65,000		$125,000	$65,000

Accounts receivable amounting to $5,000 on Company X's books represent a similar amount of accounts payable on Company Y's books. Make a consolidated balance sheet on the assumption that both companies are owned outright by Kenneth Howard.

Solution

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$100,000	$50,000	.....	.....	$150,000
Accounts Receivable	25,000	15,000	.....	$5,000	35,000
	$125,000	$65,000			$185,000
Accounts Payable	$ 15,000	$10,000	$5,000	.....	$ 20,000
Capital Stock	100,000	50,000	.....	.....	150,000
Surplus	10,000	5,000	.....	.....	15,000
	$125,000	$65,000			$185,000

Case B

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$125,000	$69,000	Due to Co. Y	$ 15,000	.....
Due from Co. X	.....	16,000	Capital Stock	100,000	$50,000
			Surplus	10,000	35,000
	$125,000	$85,000		$125,000	$85,000

The discrepancy in the personal accounts is due to a check in transit. Make a consolidated balance sheet on the assumption that both companies are owned outright by Albert E. Hillis.

Solution

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$125,000	$70,000	.....	.....	$195,000
Due from Co. X	.....	15,000	.....	$15,000	.....
	$125,000	$85,000			$195,000
Due to Co. Y	$ 15,000	.....	$15,000	.....	.....
Capital Stock	100,000	$50,000	.....	.....	$150,000
Surplus	10,000	35,000	.....	.....	45,000
	$125,000	$85,000			$195,000

Undiscounted Notes

The effect of undiscounted intercompany notes on consolidated balance sheet technique is practically the same as that of intercompany personal accounts.

Rule XXXVIII

Reconcile undiscounted intercompany notes as to accrued interest on the working papers of the individual corporations before recording them on the consolidated working papers.

Eliminate the undiscounted intercompany notes receivable with interest thereon against the intercompany notes payable with interest thereon.

Cases.—The chief variations in the underlying conditions regarding undiscounted intercompany notes are:

A. When balances agree.
B. When balances do not agree.

Case A

	Co. X	Co. Y		Co. X	Co. Y
Other Assets.....	$100,000	$50,000	Notes Payable....	$ 5,000	$ 2,000
Notes Receivable.	10,000	5,000	Capital Stock.....	100,000	50,000
			Surplus.....	5,000	3,000
	$110,000	$55,000		$110,000	$55,000

A note receivable amounting to $1,500 on Company X's books represents an non-interest bearing note payable on Company Y's books. Make a consolidated balance sheet on the assumption that both companies are owned outright by Ira E. Parks.

Solution

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets.....	$100,000	$50,000	.....	.....	$150,000
Notes Receivable.....	10,000	5,000	.....	$1,500	13,500
	$110,000	$55,000			$163,500

	Co. X	Co. Y	Eliminations		C. B. S.
Notes Payable	$ 5,000	$ 2,000	$1,500	.....	$ 5,500
Capital Stock	100,000	50,000	.....	.....	150,000
Surplus	5,000	3,000	.....	.....	8,000
	$110,000	$55,000			$163,500

Case B

Same as Case A if the note had been interest bearing and if Company X had recorded the accrued interest of $100 and Company Y had not.

Solution

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 99,900	$50,000	.....	.....	$149,900
Interest Receivable	100	.....	.....	$ 100	.....
Notes Receivable	10,000	5,000	.....	1,500	13,500
	$110,000	$55,000			$163,400
Notes Payable	$ 5,000	$ 2,000	$1,500	.....	$ 5,500
Interest Payable	.....	100	100	.....	.....
Capital Stock	100,000	50,000	.....	.....	150,000
Surplus	5,000	2,900	.....	.....	7,900
	$110,000	$55,000			$163,400

Discounted Notes

The discounted intercompany notes affect the accounts in three ways, (a) contingent assets, (b) contingent liabilities, and (c) real liabilities. From the point of view of the group, discounted intercompany notes rank as real liabilities.

Rule XXXIX

If not already used, set up a Notes Receivable Discounted account on the working papers of the individual companies before making the consolidated working papers.

Eliminate the contingent asset in the Notes Receivable account against the contingent liability in the Notes Receivable Discounted account.

Cases.—The chief variations in the underlying conditions regarding discounted intercompany notes are:

A. When the Notes Receivable Discounted account has been used.

B. When the Notes Receivable Discounted account has not been used.

Case A

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	Notes Payable	$ 5,000	$ 2,000
Notes Receivable	18,000	10,000	Notes Receivable Discounted	3,000	1,000
			Capital Stock	100,000	50,000
			Surplus	10,000	7,000
	$118,000	$60,000		$118,000	$60,000

Company X has discounted Company Y's non-interest bearing note for $1,500. Make a consolidated balance sheet on the assumption that both companies are owned outright by A. W. Hillis.

Solution

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$100,000	$50,000	.....	.....	$150,000
Notes Receivable	18,000	10,000	.....	$1,500	26,500
	$118,000	$60,000			$176,500
Notes Payable	$ 5,000	$ 2,000	.....	.....	$ 7,000
Notes Receivable Discounted	3,000	1,000	$1,500	.....	2,500
Capital Stock	100,000	50,000	.....	.....	150,000
Surplus	10,000	7,000	.....	.....	17,000
	$118,000	$60,000			$176,500

Case B

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$105,000	$45,000	Notes Payable	$ 8,000	$ 5,000
Notes Receivable	15,000	20,000	Capital Stock	100,000	50,000
			Surplus	12,000	10,000
	$120,000	$65,000		$120,000	$65,000

Company X has discounted Company Y's non-interest bearing note for $2,000 and a non-interest bearing note of Raymond

H. Powell for $1,000. Make a consolidated balance sheet on the assumption that both companies are owned outright by Howard Manning.

SOLUTION

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$105,000	$45,000	.....	.....	$150,000
Notes Receivable	18,000	20,000	.....	$2,000	36,000
	$123,000	$65,000			$186,000
Notes Payable	$ 8,000	$ 5,000	.....	.....	$ 13,000
Notes Receivable Discounted	3,000	.....	$2,000	.....	1,000
Capital Stock	100,000	50,000	.....	.....	150,000
Surplus	12,000	10,000	.....	.....	22,000
	$123,000	$65,000			$186,000

CHAPTER XX

UNREALIZED INTERCOMPANY PROFITS

When one constituent company sells goods or constructs fixed assets at a profit for another constituent company, the minority interest in the former has a legal right to consider that the profit has been realized. Such profits are unrealized, however, from the point of view of the majority interests.

Reserve for Unrealized Intercompany Profits.—The use of the Reserve for Unrealized Intercompany Profits account, which should be deducted from the related assets on the formal consolidation balance sheet, is shown in the following illustration:

Give the journal entries for the Reserve for Unrealized Intercompany Profits account if the amounts of the holding company's share of the intercompany profits included in the assets were: January 1, 1924, $5,000; January 1, 1925, $7,000; January 1, 1926, $6,000.

December 31, 1923

Profit and Loss	$5,000	
Reserve for Unrealized Intercompany Profits		$5,000

December 31, 1924

Profit and Loss	$2,000	
Reserve for Unrealized Intercompany Profits		$2,000

December 31, 1925

Reserve for Unrealized Intercompany Profits	$1,000	
Profit and Loss		$1,000

Rule XL

Create a reserve for unrealized intercompany profits sufficient in amount to eliminate the holding company's

share of the intercompany profits in assets acquired since date of affiliation and still held.

Intercompany Profits under Grandson Relationship.—The application of the above rule involves an added complexity under grandson relationships. For example, if Company X owns 90 per cent of Company Y's stock, and Company Y owns 80 per cent of Company Z's stock 72 per cent ($.90 \times .80$) of the intercompany profits in Company Z's assets must be eliminated.

Cases.—The chief variations in the underlying conditions regarding intercompany profits are:

A. Profit in asset acquired since date of affiliation and still held.
   (a) Asset held by subsidiary.
   (b) Asset held by parent.
B. Profit in asset acquired before date of affiliation and still held.
C. Profit in asset both acquired and sold since date of affiliation.
D. Depreciation on intercompany construction.

Case Aa

	Co. X	Co. Y		Co. X	Co. Y
Other Assets.....	$100,000	$40,000	Capital Stock.....	$120,000	$50,000
Inventories.....	20,000	10,000			
	$120,000	$50,000		$120,000	$50,000

On January 1, 1925, the date of the above balance sheets, Company X purchased 400 shares of Company Y's stock at par on the open market. The 1925 Profit and Loss account for each company had a credit balance of $10,000. The only intercompany transaction ever made was a cash sale on December 31, 1925, from Company X to Company Y of merchandise costing $5,000 for $6,000. Make a consolidated balance sheet

as of January 1, 1926, if the final inventories were the same in amount as the initial inventories.

Solution—Cost Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$50,000	.....	.....	$120,000
Y's Stock	40,000	.....	.....	$40,000	.....
Inventories	20,000	10,000	.....	.....	30,000
	$130,000	$60,000			$150,000
Capital Stock:					
Inside	$120,000	$40,000	$40,000	.....	$120,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	10,000	8,000	800	.....	17,200
Outside	.....	2,000	.....	.....	2,000
Reserve for Unrealized Intercompany Profits (a)	.....	.....	.....	800	800
	$130,000	$60,000			$150,000

(a) $4/5 \times \$1,000 = \$800$ (See discussion after Case Ab.)

Solution—Actual Value Method

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 70,000	$50,000	.....	.....	$120,000
Y's Stock (a)	48,000	.....	.....	$48,000	.....
Inventories	20,000	10,000	.....	.....	30,000
	$138,000	$60,000			$150,000
Capital Stock:					
Inside	$120,000	$40,000	$40,000	.....	$120,000
Outside	.....	10,000	.....	.....	10,000
Surplus:					
Inside	18,000	8,000	8,800	.....	17,200
Outside	.....	2,000	.....	.....	2,000
Reserve for Unrealized Intercompany Profits (b)	.....	.....	.....	800	800
	$138,000	$60,000			$150,000

(a) $\$40,000 + (4/5 \times \$10,000) = \$48,000$
(b) $4/5 \times \$1,000 = \$800$ (See discussion after Case Ab)

Case Ab

Same as Case Aa if the intercompany sale had been from Company Y to Company X instead of from Company X to Company Y.

SOLUTION

The solutions under both the Cost Value and Actual Value Methods are identical with the respective solutions for Case Aa.

Conflicting Opinions as to Amount of Reserves.—The opinions of accountants as to the proper amount of the Reserve for Unrealized Intercompany Profits account may be divided into three groups, which, when translated into terms of Case Aa and Case Ab, are:

1. $1,000 in both Case Aa and Case Ab.
2. $900 in Case Aa and $1,000 in Case Ab.
3. $900 in both Case Aa and Case Ab.

The Income Tax Authorities are forced to use the first opinion by the fact that both the minority and majority interests constitute invested capital. Many accountants favor this opinion because of its conservatism and because they dislike having identical assets valued at different prices, i.e., at cost to manufacture in one place and cost to manufacture plus a profit in another place.

The holders of the third opinion stress the purpose of a consolidated balance sheet, viz., the ascertaining of exactly what is behind the majority interests. From the point of view of the majority interests, the minority are outsiders. Profits paid to them, therefore, constitute costs to the majority interests and realized profits to the minority interests, and profits on sales to them constitute costs to the minority interests and realized profits to the majority interests.

The holders of the second opinion accept the theory that profits paid to the minority by the majority interests constitute cost, but reject as unconservative the theory that profits on sales to the minority constitute realized profits to the majority.

The present author recommends the third opinion because the differentiation made between the majority and minority

interests is the chief underlying principle in consolidated balance sheet technique.

Case B

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$ 50,000	$20,000	Capital Stock	$100,000	$50,000
Inventory	60,000	35,000	Surplus	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets, Hugh L. Ducker bought all the stock of both companies. Company Y's present inventory was manufactured and sold during 1923 by Company X at a net profit of $5,000. Both companies made an operating profit of $10,000 during 1925. Make a consolidated balance sheet as of January 1, 1926, if the final inventories were the same in amount as the initial inventories.

Solution

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$ 60,000	$30,000	.....	.....	$ 90,000
Inventory	60,000	35,000	.....	.....	95,000
	$120,000	$65,000			$185,000
Capital Stock	$100,000	$50,000	.....	.....	$150,000
Surplus	20,000	15,000	.....	.....	35,000
	$120,000	$65,000			$185,000

No eliminations need be made for profits made prior to date of affiliation because they are not technically Intercompany profits, and because in a Class A affiliation the profits in the assets would be discounted in the purchase price of the stock.

Case C

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	Capital Stock	$100,000	$50,000
Inventories	10,000	5,000	Surplus	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

On January 1, 1925, the date of the above balance sheets, Lester A. Pratt bought all the stock of both companies. During

February, Company X sold merchandise costing $1,000 to Company Y for $1,500. Company Y later sold this merchandise for $2,000. During 1925 both companies made a net operating profit of $10,000. Make a consolidated balance sheet as of January 1, 1926, if the final inventories were the same in amount as the initial inventories.

SOLUTION

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$110,000	$60,000	.....	.....	$170,000
Inventories	10,000	5,000	.....	.....	15,000
	$120,000	$65,000			$185,000
Capital Stock	$100,000	$50,000	.....	.....	$150,000
Surplus	20,000	15,000	.....	.....	35,000
	$120,000	$65,000			$185,000

No eliminations need be made in Case C because the intercompany profits have been realized.

CASE D

	Co. X	Co. Y		Co. X	Co. Y
Other Assets	$100,000	$50,000	Capital Stock	$100,000	$50,000
Plant	10,000	5,000	Surplus	10,000	5,000
	$110,000	$55,000		$110,000	$55,000

Both companies were bought outright by Fred White on January 1, 1925, the date of the above balance sheets. Later on the same day Company X sold an engine carried in its Other Assets account at $5,000 to Company Y for $6,000 cash. Before writing down their Plant accounts 10 per cent for depreciation, Company X and Company Y each had a credit balance of $10,000 in their 1925 Profit and Loss account. Make a consolidated balance sheet as of January 1, 1926.

SOLUTION

	Co. X	Co. Y	Eliminations		C. B. S.
Other Assets	$110,000	$54,000	.....	.....	$164,000
Plant (a)	9,000	9,900	.....	.....	18,900
	$119,000	$63,900			$182,900

	Co. X	Co. Y	Eliminations		C. B. S.
Reserve for Unrealized Intercompany Profits	.....	.....	.....	$900	$ 900
Capital Stock	$100,000	$50,000	.....	.....	150,000
Surplus (b)	19,000	13,900	$900	.....	32,000
	$119,000	$63,900			$182,900

(a) $9/10 \times (\$5,000 + \$6,000) = \$9,900$
(b) $9/10 \times (\$6,000 - \$5,000) = \$900$

As the minority in a Class A affiliation would be misstated if a subsidiary owning an intercompany constructed plant depreciated same on the Cost to the Group basis, each company should depreciate its assets independently and then only the unrealized intercompany profit should be eliminated. If a consolidated profit and loss statement is required the complete elimination entries regarding the above intercompany fixed asset would be:

Surplus	$1,000	
Depreciation		$100
Reserve for Unrealized Intercompany Profits		900

Depreciation on intercompany construction in a Class A affiliation with minority interests is shown in the illustrative problem in Appendix.

APPENDIX

CONSOLIDATED PROFIT AND LOSS STATEMENT

Consolidated profit and loss statements are especially closely related to consolidated balance sheets when the latter involve adjustments for intercompany profits. Of course, intercompany payments for bond interest, dividends, etc., have no effect on the consolidated net profit. As such items becloud the operating statistics of the group, they should not be shown on the consolidated profit and loss statement.

Rule XLI

Prepare a consolidated profit and loss statement by eliminating all intercompany transfers and by creating a Reserve for Unrealized Intercompany Profits account (Rule XL).

Illustrative Problem.—While it is entirely practical to break the consolidated working papers into sections for (a) balance sheet, (b) cost of sales, (c) profit and loss, and (d) surplus, the following problem with its working papers and solution illustrates the technique required in the preparation of a combined consolidated balance sheet and profit and loss statement.

	Co. X	Co. Y		Co. X	Co. Y
Other Assets.....	$ 90,000	$35,000	Bonds, 5%.....	.....	$20,000
Inventories.....	10,000	15,000	Capital Stock.....	$100,000	50,000
Plant.....	60,000	25,000	Surplus.....	60,000	5,000
	$160,000	$75,000		$160,000	$75,000

On January 1, 1925, the date of the above balance sheets, Company X, a manufacturer of engines, bought on the open

market 400 out of 500 shares of Company Y's stock at 125 and 15 out of 20 bonds of Company Y at par. On January 1, 1925, Company Y bought for cash an engine from Company X for $6,000 which was included in Company X's inventory at $5,000. Company X during the year purchased for cash merchandise from Company Y for $5,000 which cost Company Y $3,000, and later sold one-half of this merchandise for $4,000 cash. Besides the above, cash disbursements were: Company X—purchases $25,000, productive labor $10,000, manufacturing expense $5,000; Company Y—purchases $20,000, productive labor $8,000, manufacturing expense $4,000, bond interest $1,000, dividends $5,000. Both companies wrote down their plant 10 per cent for depreciation. Sales, other than above, were: Company X $60,000; Company Y $50,000. Final inventories were: Company X, $12,000; Company Y, $20,000. Assuming that transactions were not intercompany unless so specified, make a consolidated balance sheet and profit and loss statement as of January 1, 1926.

Solution—Cost Value Method

Company X

Individual Working Papers

For Year Ended December 31, 1925

	Trial Balance 1/1/25 Debits	Adjustments Debits	Adjustments Credits	Trial Balance 12/31/25 Debits
Other Assets	$ 90,000	$ 6,000 (a)	$ 5,000 (b)	$ 54,750
		4,000 (c)	40,000 (d)	
		4,750 (e)	50,000 (g)	
		60,000 (f)	15,000 (h)	
Inventories (Initial)	10,000	.....	.....	10,000
Plant	60,000	.....	6,000 (i)	54,000
Co. Y's Stock	.....	50,000 (g)	.....	50,000
Co. Y's Bonds	.....	15,000 (h)	.....	15,000
Purchases	.....	5,000 (b)	.....	30,000
		25,000 (d)		
Productive Labor	.....	10,000 (d)	.....	10,000
Manufacturing Expense	.....	5,000 (d)	.....	5,000
Depreciation	.....	6,000 (i)	.....	6,000
	$160,000	$190,750	$116,000	$234,750

	Credits	Debits	Credits	Credits
Adjustment column totals brought forward	.....	$190,750	$116,000	.....
Capital Stock	$100,000	.....	.....	$100,000
Surplus	60,000	.....	.....	60,000
Sales	.....	.....	6,000 (a)	70,000
			4,000 (c)	
			60,000 (f)	
Interest Received	.....	.....	750 (e)	750
Dividends Received	.....	.....	4,000 (e)	4,000
	$160,000	$190,750	$190,750	$234,750

COMPANY Y

INDIVIDUAL WORKING PAPERS

For Year Ended December 31, 1925

	Trial Balance 1/1/25 Debits	Adjustments Debits	Adjustments Credits	Trial Balance 12/31/25 Debits
Other Assets	$35,000	$ 5,000 (b)	$ 6,000 (a)	$ 46,000
		50,000 (d)	38,000 (c)	
Inventories (Initial)	15,000	.....	.....	15,000
Plant	25,000	6,000 (a)	3,100 (e)	27,900
Purchases	.....	20,000 (c)	.....	20,000
Productive Labor	.....	8,000 (c)	.....	8,000
Manufacturing Expense	.....	4,000 (c)	.....	4,000
Depreciation	.....	3,100 (e)	.....	3,100
Bond Interest	.....	1,000 (c)	.....	1,000
Dividends Declared	.....	5,000 (c)	.....	5,000
	$75,000	$102,100	$ 47,100	$130,000

	Credits	Debits	Credits	Credits
Adjustment column totals brought forward	.....	$102,100	$ 47,100	.....
Bonds Payable	$20,000	.....	.....	$ 20,000
Capital Stock	50,000	.....	.....	50,000
Surplus	5,000	.....	.....	5,000
Sales	.....	.....	5,000 (b)	55,000
			50,000 (d)	
	$75,000	$102,100	$102,100	$130,000

COMPANY X AND SUBSIDIARY, COMPANY Y

CONSOLIDATED WORKING PAPERS

For Year Ended December 31, 1925

	Co. X Trial Balance	Co. Y Trial Balance	Adjustments and Eliminations		Profit and Loss	Consol. Balance Sheet
	Debits	Debits	Debits	Credits	Debits	Debits
Other Assets	$ 54,750	$ 46,000	.....	.....	.....	$100,750
Inventories (Initial)	10,000	15,000	.....	$ 5,000 (b)	$ 20,000	.....
Plant	54,000	27,900	.....	.....	.....	81,900
Goodwill	.....	.....	$ 6,000 (h)	.....	.....	6,000
Co. Y's Stock	50,000	.....	.....	50,000 (h)	.....	.....
Co. Y's Bonds	15,000	.....	.....	15,000 (i)	.....	.....
Purchases	30,000	20,000	.....	5,000 (c)	45,000	.....
Productive Labor	10,000	8,000	.....	.....	18,000	.....
Manufacturing Expense	5,000	4,000	.....	.....	9,000	.....
Depreciation	6,000	3,100	.....	80 (g)	9,020	.....
Bond Interest	.....	1,000	.....	750 (d)	250	.....
Dividends Declared	.....	5,000	.....	4,000 (e)	1,000	.....
	$234,750	$130,000				
Final Inventories	.....	.....	32,000 (a)	.....	.....	32,000
Total Debits to Nominal Accounts	$ 61,000	$ 56,100				
			$38,000	$79,830	$102,270	$220,650

	Credits	Credits	Debits	Credits	Credits	Credits
Adjustment column totals brought forward	.....	.....	$ 38,000	$ 79,830	.....	.....
Bonds Payable	.....	$ 20,000	15,000 (i)	.....	.....	$ 5,000
Capital Stock:						
Inside	$100,000	40,000	40,000 (h)	.....	.....	100,000
Outside	.....	10,000	.....	.....	.....	10,000
Surplus:						
Inside	60,000	4,000	4,000 (h)	.....	.....	60,000
Outside	.....	1,000	.....	.....	.....	1,000
Sales	70,000	55,000	5,800 (b)	.....	$114,200	.....
			5,000 (c)			
Interest Received	750	.....	750 (d)	.....	.....	.....
Dividends Received	4,000	.....	4,000 (e)	.....	.....	.....
	$234,750	$130,000				
Final Inventories	$ 12,000	$ 20,000	800 (f)	32,000 (a)	31,200	.....
Reserve for Unrealized Intercompany Profit	.....	.....	80 (g)	800 (b)	.....	1,520
				800 (f)	.....	.....
			$113,430	$113,430	$145,400	

	Credits	Credits	Debits	Credits	Credits	Credits
Total Debits to Profit and Loss (per contra)	.....	.....	.....	.....	$102,270	.....
Actual Profit after Deducting Dividends	.....	.....	.....	.....	$ 43,130	.....
Total Credits to Nominal Accounts	$ 86,750	$ 75,000	.....	.....	.....	.....
Total Debits to Nominal Accounts (per contra)	61,000	56,100	.....	.....	.....	.....
Book Profit after Deducting Dividends	$ 25,750	$ 18,900	.....	.....	.....	.....
Minority Interests (20%)	.....	3,780	.....	.....	3,780	$3,780
Majority Interests	.....	$ 15,120	.....	.....	$ 39,350	39,350
						$220,650

Company X and Subsidiary, Company Y

Consolidated Balance Sheet

January 1, 1926

Assets

Other Assets		$100,750
Inventories	$ 32,000	
Less Reserve for Unrealized Intercompany Profit	800	31,200
Plant	$ 81,900	
Less Reserve for Unrealized Intercompany Profit	720	81,180
Goodwill		6,000
		$219,130

Liabilities and Capital

Bonds Payable		$ 5,000
Majority Interests:		
Capital Stock	$100,000	
Surplus, January 1, 1925	60,000	
Current Profits	39,350	199,350
Minority Interests:		
Capital Stock	$ 10,000	
Surplus, January 1, 1925	1,000	
Current Profits	3,780	14,780
		$219,130

COMPANY X AND SUBSIDIARY, COMPANY Y
CONSOLIDATED PROFIT AND LOSS STATEMENT
For Year Ended December 31, 1925

Sales			$114,200
Cost of Sales:			
Inventory, January 1, 1925	$20,000		
Purchases	45,000		
Productive Labor	18,000		
Manufacturing Expense	9,000		
Depreciation	9,020	$101,020	
Inventory, December 31, 1925		31,200	69,820
Gross Profit on Sales			$ 44,380
Bond Interest			250
Net Profit for Year			$ 44,130
Dividends Declared			1,000
Addition to Surplus			$ 43,130
Majority Interest's Share		$ 39,350	
Minority Interest's Share		3,780	$ 43,130

SOLUTION—ACTUAL VALUE METHOD

The formal financial statements are identical under both the Cost Value and Actual Value Methods so will not be repeated.

The individual working papers of Company Y would be identical under both methods. The individual working papers of Company X under the two methods differ only in recording the receipt of the dividend from Company Y. Under the Cost Value Method the entry is,

Other Assets	$4,000	
Dividends Received		$4,000

while, under the Actual Value Method the entry is,

Other Assets	$4,000	
Co. Y's Stock		$4,000

COMPANY X AND SUBSIDIARY, COMPANY Y
CONSOLIDATED WORKING PAPERS
For Year Ended December 31, 1925

	Co. X Trial Balance	Co. Y Trial Balance	Adjustments and Eliminations		Profit and Loss	Consol. Balance Sheet
	Debits	Debits	Debits	Credits	Debits	Debits
Other Assets	$ 54,750	$ 46,000	.....	.....	.....	$100,750
Inventories (Initial)	10,000	15,000	.....	$ 5,000 (e)	$ 20,000	.....
Plant	54,000	27,900	.....	.....	.....	81,900
Goodwill	.....	.....	$ 6,000 (i)	.....	.....	6,000
Co. Y's Stock	46,000	.....	19,120 (b)	65,120 (i)	.....	.....
Co. Y's Bonds	15,000	.....	.....	15,000 (d)	.....	.....
Purchases	30,000	20,000	.....	5,000 (f)	45,000	.....
Productive Labor	10,000	8,000	.....	.....	18,000	.....
Manufacturing Expense	5,000	4,000	.....	.....	9,000	.....
Depreciation	6,000	3,100	.....	80 (g)	9,020	.....
Bond Interest	.....	1,000	.....	750 (h)	250	.....
Dividends Declared	.....	5,000	.....	4,000 (c)	1,000	.....
	$230,750	$130,000				
Final Inventories	.....	.....	32,000 (a)	.....	.....	32,000
Total Debits to Nominal Accounts	$ 61,000	$ 56,100				
			$57,120	$94,950	$102,270	$220,650
	Credits	Credits	Debits	Credits	Credits	Credits
Adjustment column totals brought forward	.....	.....	$ 57,120	$ 94,950	.....	.....
Bonds Payable	.....	$ 20,000	15,000 (d)	.....	.....	$ 5,000
Capital Stock:						
Inside	$100,000	40,000	40,000 (i)	.....	.....	100,000
Outside	.....	10,000	.....	.....	.....	10,000
Surplus:						
Inside	60,000	4,000	4,000 (i)	.....	.....	60,000
Outside	.....	1,000	.....	.....	.....	1,000
Sales	70,000	55,000	5,800 (e)	.....	$114,200	.....
			5,000 (f)			
Interest Received	750	.....	750 (h)	.....	.....	.....
	$230,750	$130,000				
Final Inventories	$ 12,000	$ 20,000	800 (j)	32,000 (a)	31,200	.....
Reserve for Unrealized Intercompany Profit	.....	.....	80 (g)	800 (e)	.....	1,520
				800 (j)		
Total Credits to Profit and Loss	.....	.....	.....	.....	$145,400	.....
Total Debits to Profit and Loss (per contra)	.....	.....	.....	.....	102,270	.....
Actual Profit after Deducting Dividends	.....	.....	.....	.....	$ 43,130	.....

	Co. X Trial Balance Credits	Co. Y Trial Balance Credits	Adjustments and Eliminations Debits	Adjustments and Eliminations Credits	Profit and Loss Credits	Consol. Balance Sheet Credits
Total Credits to Nominal Accounts	$ 82,750	$ 75,000	.....	.....	.....	.....
Total Debits to Nominal Accounts (per contra)	61,000	56,100	.....	.....	.....	.....
Book Profit after Deducting Dividends	$ 21,750	$ 18,900	.....	.....	.....	.....
Minority Interests (20%)	.....	3,780	.....	.....	$3,780	$3,780
Majority Interest's Share of Remaining Profits	.....	$ 15,120	.....	.....	.....	.....
Dividends Received by Majority Interests	.....	4,000	.....	.....	.....	.....
Total Book Profit to Majority Interests	.....	$ 19,120	$4,000 (c) 15,120 (i)	$19,120 (b)	.....	.....
Majority Interests	.....	.....	.....	.....	$ 39,350	39,350
			$147,670	$147,670		$220,650

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